THE BUILDER
A JOURNAL FOR THE ARCHITECT & CONSTRUCTOR

VOL. CXL. JUNE 5, 1931 No. 4609.

ROYAL SCOTTISH ACADEMY EXHIBITION, 1931.

Church of Our Lady, Bangour Village, West Lothian: Memorial Chapel.

MR. H. O. TARBOLTON, A.R.S.A., F.R.I.B.A., Architect. (*See page* 1006.)

MEETINGS

FRIDAY, *June* 5.

Institution of Municipal and County Engineers. Institution Meeting. At Watling-street, near Dunstable, and Whipsnade Zoo. 11 a.m.

National Union of Commercial Travellers. Mr. F. V. Hallam on "Place Names—Humorous and otherwise." At 24-28, New Oxford-street, W.C.1. 8 p.m.

SATURDAY, *June* 6.

Association of Architects, Surveyors and Technical Assistants. Annual Dinner. At the Florence Restaurant, Rupert-street, W.1. 7 p.m.

WEDNESDAY, *June* 10.

Institution of Municipal and County Engineers. West Midland District Meeting. At Worcester.

Institution of Structural Engineers. Mr. H. A. Holt on "Raw Materials of Concrete and their Field Testing." 6 p.m.

THURSDAY-SATURDAY, *June* 11-13.

Institution of Municipal and County Engineers. Scottish District Summer Meeting. At St. Andrews.

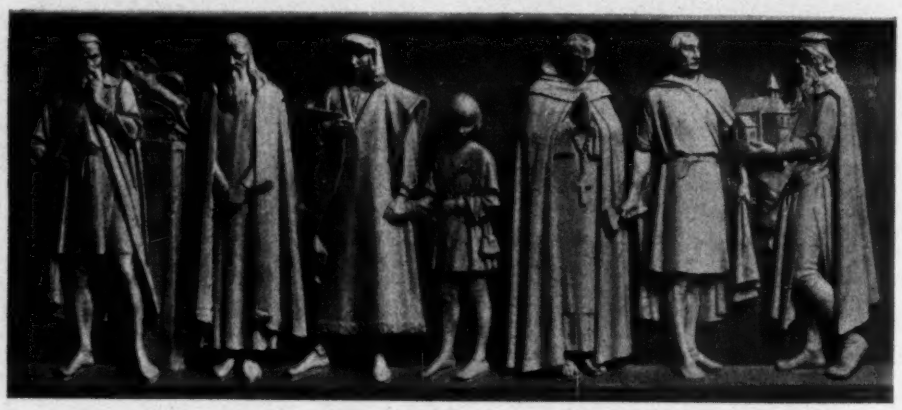
FRIDAY, *June* 12.

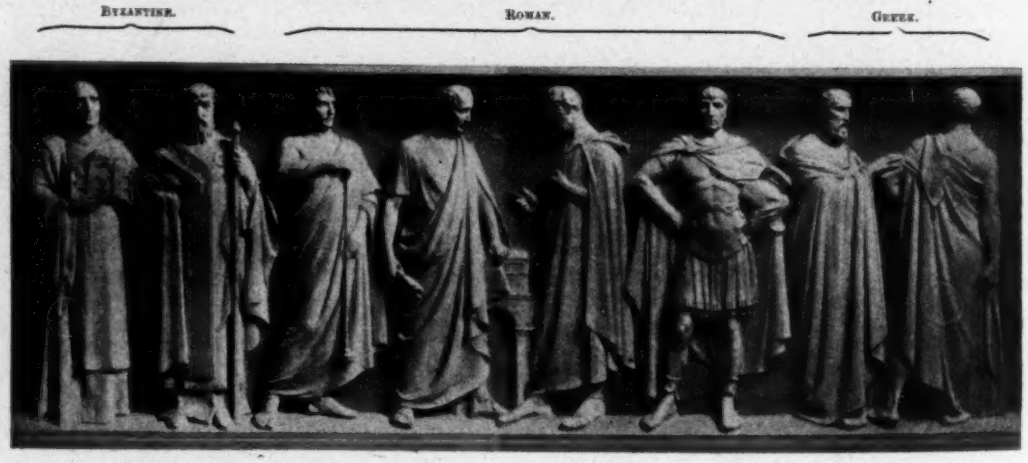
Royal Institution. Mr. C. L. Woolley on "Latest Excavations at Ur." At 12, Albemarle-street, W.1. 8 p.m.

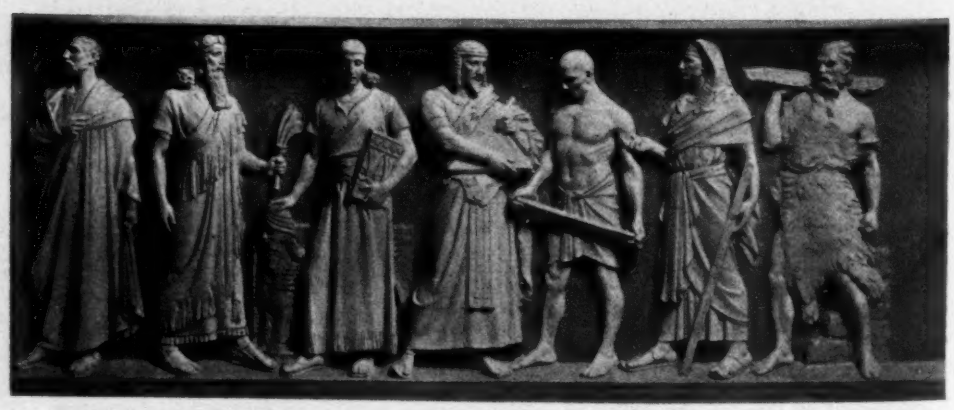
SATURDAY, *June* 13.

Liverpool Architectural Society. Visit to Haigh Hall, near Wigan.

Institution of Municipal and County Engineers. South-Eastern District Meeting. At the County Hall, Kingston-on-Thames. 11.30 a.m.







Frieze on New Extension of the Institute of Chartered Accountants, Moorgate, E.C.

Mr. J. A. Stevenson, Sculptor. Mr. J. J. Joass, F.R.I.B.A., Architect.

(*See page* 1003.)

ART AND THE BANKS

THE time when it was generally possible to judge the trade or calling of the individual by outward evidence, such as of dress or of some physical characteristic, has long passed; and while the characteristics of buildings have remained long after, they too seem to be losing many of the striking features by which one once judged them. We seem to be casting ourselves to a pattern, and if buildings are to follow the same road, we shall soon have to search in different quarters for at least one of the points of interest in architecture. The skill of the designer is indeed heavily taxed to supply the characteristic interest which belongs to each type of building. Especially is this the case in the design of banking premises. Masonic strength, solidity and dignity, the features which come to mind as typical of the strong place where gold is stored, are essentially architectural qualities, and it is not to be wondered at that the architects of a century and more have found the design of banking premises a fruitful field for architectural expression, and we can easily think of a number of such buildings which have been held up to us as classics from our student days.

Soane's Bank of England is an example which comes to mind at once as one of the happiest architectural expressions of the dignity and security of banking. The dignified portals and wall treatment and the elimination of windows to the street have combined to suggest all that is most typical of the banking traditions of this country. The same building happens to offer a striking contrast between the old and the new, for Sir Herbert Baker's inner and higher extension, borrowing the unaltered original front as the podium for a modern building, expresses the enormous difference between our ideas of security in these days and those which appeared necessary, and probably were necessary, to our fathers. In all industrial offices the call is for light and air, the first essentials for efficiency, and whether the offices house bankers or stockbrokers, the proportion of window space to wall space remains much the same in the modern eye. The Bank of England extension, therefore, makes the most of the substantial start which a previous generation of ideas gave it, and extends upwards without further emphasis upon the idea of safes and strong-rooms. And if we think about it, such an excellently-policed community as modern England borrows security more from light and observation than from thick-walls and little windows.

Much may be going on behind a blank wall, however strong it may be; and there are indeed few walls so strong that the ingenuity of the modern criminal cannot pierce them. Very little can go on behind a brightly illuminated window in a well-policed street. And so we may wonder whether the future bank is to lose all the characteristics which made of it once a happy hunting-ground for the architect. It must still retain the quality of dignity, but is this not a quality which all the heads of commerce are demanding when calling upon architecture to serve them? Are we to make up our minds that the future bank will declare itself only by the inscription in bronze lettering and that in all other respects it will fall into pattern with the rest of the street? It would certainly seem to be so.

Even in the country towns we see signs, though less revolutionary, that the type of the country bank building is changing, and in some cases the resulting expression is sufficiently marked to show a definite change. We have in mind a very able example in a country town in the home counties which has been recently completed. In this case the whole ground-floor front has been opened out as a single wide window, admirably treated in a free classic manner in oak. The stallboard is handsomely panelled in the same material, and a fine iron grille with some gilding completes a striking composition quite apart from the more usual bank layout, and yet expressing some hint of the characteristics which we have come to expect in this class of building. We have seen others in similar vein, though none "hitting off" the right note so happily as this.

More usually we find the three-arch motive in use in the modern bank street front, and where, as is usually the case, ample light for the banking hall can be found over or in the rear of the hall, such a motive serves its purpose in dignified fashion and retains some of the masonic qualities which modern conditions often deny the bank. In such cases one welcomes a type which has weathered the flood of modern demand for daylight on all sides, and one reads "Bank" more easily than in the other and harder cases where the street front offers more or less the only source of light for the banking hall. In these latter cases one has often to admire the skill with which the designer has overcome a handicap in design which his forerunners did not share. But in almost all the cases of modern bank rebuildings it is only fair to the industry to mark the very high standard of architecture which is maintained in this class of building. It would indeed be hard to find another class of modern building in which there are so few enormities, such a small proportion of mediocrity, and so many really great expressions of architecture. This is not only the case in London, where the great banks have been particularly active in the last ten years, but throughout the country in the smaller and less pretentious way in which the provinces generally achieve architectural decency.

It is also interesting to observe that the dominant note of country bank architecture is much the same note which was dominant in that sound period of English architecture which maintained throughout the eighteenth century. It is not so much that these new buildings are deliberate period studies, as that the designers of them have found much the same standards of dignity, rhythm and material serving the modern purpose perfectly efficiently, and have served no cause to depart from those standards just because we have entered other centuries. When we realise that the eighteenth century probably marked the last consistent period of architectural practice, and that many scores of years have passed since then of fruitless experiment, insincere revivals, and general doubling upon tracks, it need not seem so unreasonable that those in search of pure architecture should retrace their steps to the place where architects first lost their way; and with some hope that a stepping forward on similar lines may lead to some order out of the present chaos in architectural design. There is also this satisfactory consideration, that so many of our country towns still retain the Georgian countenance which the eighteenth century put upon them that these new banks sit very comfortably in such surroundings; not pretending to antiquity but respecting a manner.

We would suggest that the same diffidence in the presence of old dignity would serve other interests equally well, and far more adequately than many of the shocking extravagances with which some commercial interests expose themselves to view in similar surroundings. There is not much room for the startling element in architecture on a small scale, and those who attempt it find they have soon to demolish the up-to-date thing of a year or two back to make room for something still more startling. So is the Rake's Progress of such architecture started and maintained.

We cannot but feel grateful that the banking business at least has turned a deaf ear to the clamour of such competition, and that in building it has in mind some instinct of monumentalism. For whatever the changes and developments of modern life may demand of our buildings, fine architecture comes only from those who design and build for all time. That is the quality which has left us our most treasured architectural relics.

NOTES

The Roman Villa at Southwick.

The work of excavation, which still progresses on the site of the Roman Villa at Southwick in Sussex, continues to reveal new features of interest. What had been already established, from the wall foundations discovered some little time ago, was that this villa was a very large building, erected on the plan of a quadrangle, that it was adorned with a certain amount of taste and luxury, and that it was probably a centre for the important wheat-growing industry on this favoured part of the Sussex coast, between the downs and sea. What now seems to emerge from recent finds is that it was established fairly early in the Roman occupation; there must have been a very fine mosaic pavement, and the beautiful gold tessera work on glass may—it is considered—have come from as far as Damascus, while the finds of pottery connect with the potters of Gaul, the great two-handled amphora with its inscription of "Arva Sals" coming from Salses near Narbonne, where pottery was made under the Romans. The excellent notice published by the Sussex Archæological Society states that no hypocaust or central heating has been found, nor any bath; this was true, no doubt, when this notice was written, but recently there has emerged what must certainly have been the heating furnaces for the villa, with some very large tiles. The coins unearthed include a very fine one of Hadrian, its reverse a galley in full sail, struck about 120 A.D.; of Constantine—about 330 A.D.—and others, and go to prove that this great patrician villa continued all through the Roman Britain till the catastrophe of the Saxon invasion. We agree with the remarks of the Sussex Society that "steps should be taken to preserve the site as being of national historic importance. To uncover so unique a building, and then destroy it for the erection of a twentieth-century villa, would be an act of vandalism worthy of its original destroyers."

Cambridge Preservation Society.

Judging from a report just received we see evidence that the Cambridge Preservation Society is doing very useful work. The constant dangers to the amenities of a town where activities in building are in progress need very active observation and concern. In such a city as Cambridge the constant need of vigilance is obvious and the report before us shows in how many ways this is needed. Amongst the abuses of advertisement, for instance, it is to be noted that one blemish is a fixed advertisement on the railings of the University Arts School. The policy of praising the quality of good new buildings is being carried on in Cambridge. Special praise is given to Messrs. Forbes and Tate, the two architects responsible for new buildings in Hobson-street and the reconditioning of a Georgian building on the King's-parade. Among other architects who receive commendation from the Society for their work during the past year are Messrs. North, Robin and Wilsdon; Major C. F. Skipper; Mr. Tomlinson; Mr. T. H. Lyon; Mr. C. W. Craske; and Mr. A. T. Macalister. The Council of the Society make a special appeal to the local Town Planning Committee and to the owners of the land along Madingley road to make a concerted scheme for dignified development and a large area of agricultural zone, so that the dignity of this entrance to the town may be maintained and that people may still have their country walks close to Cambridge.

Gresford Church.

The beautiful old church at Gresford, Denbighshire, is another of the victims of the death-watch beetle, which has made great ravages in the roof. Our illustration shows how interesting is the old richly decorated roof, which is being restored by Mr. T. H. Crossley, of Chester. This is one of the cases in which the aid of the Incorporated Church Building Society has been valuable. The report for 1930 is before us, and contains an article on the organ by Mr. F. C. Eden which is interesting and instructive. It may be remembered that during its existence the Church Building Society has expended considerably over a million pounds in grants for church building and repair.

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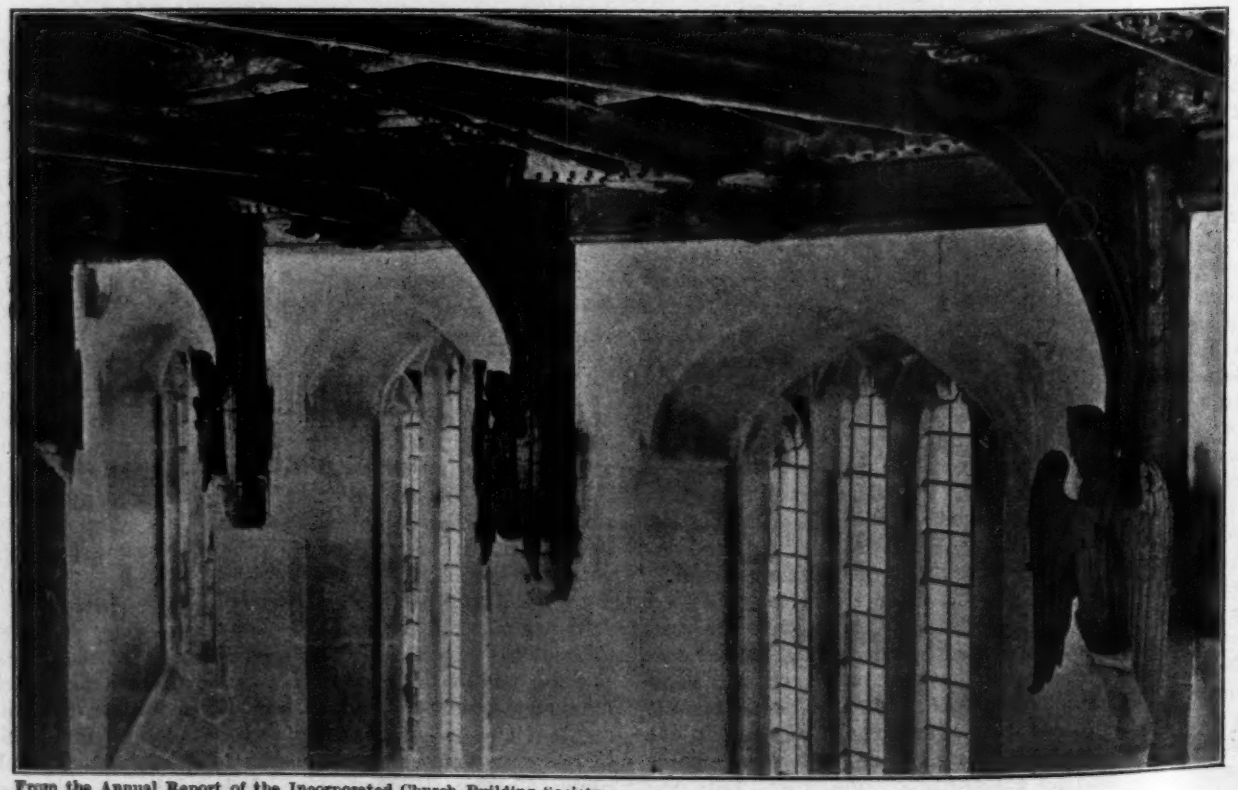

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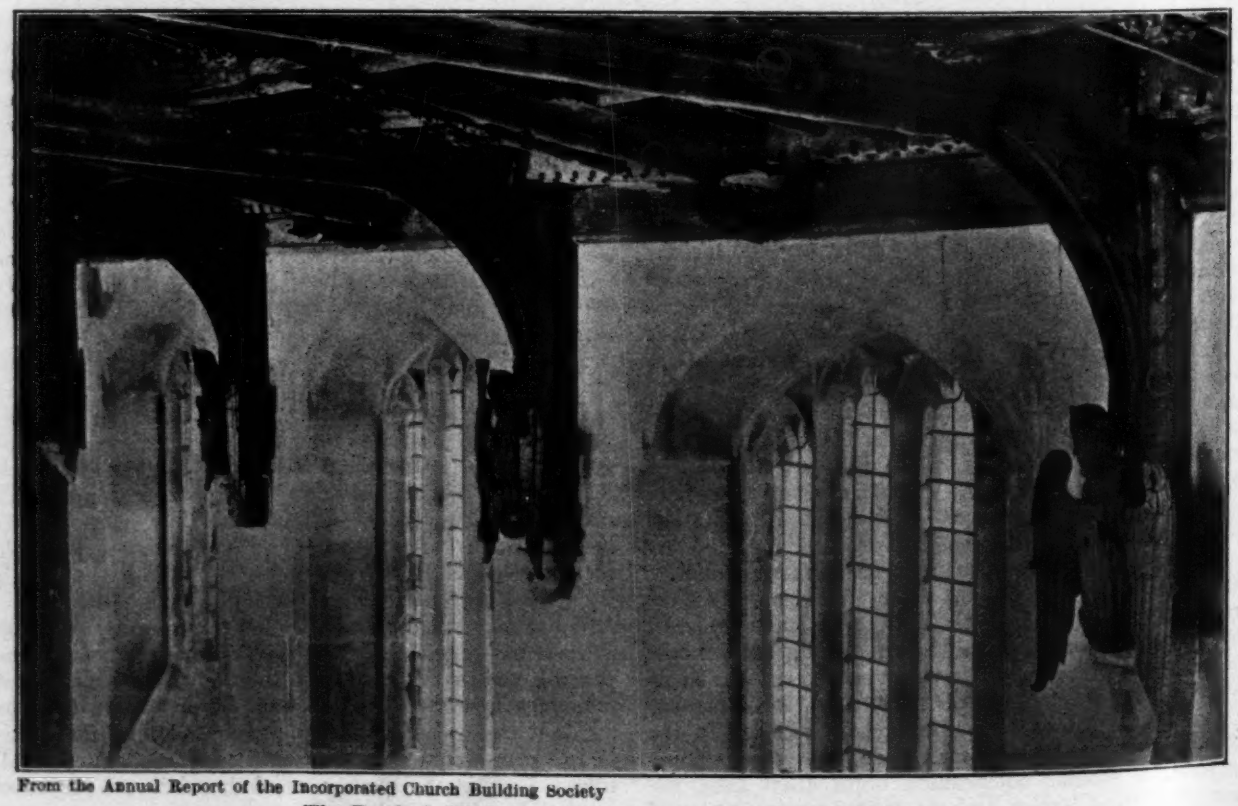

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GENERAL NEWS

Professional Announcements.

Mr. S. H. Loweth, F.R.I.B.A., M.I.Struct.E., has removed from Maidstone to "Westways," Bearsted, Kent. 'Phone Bearsted 6217.

The executors of the late Mr. W. Courtenay Le Maitre wish it to be known that Mr. Le Maitre's practice as an architect has been taken over by Messrs. William and Segar Owen, architects, of Warrington and London. The partners in this practice will be Mr. Geoffrey Owen, F.R.I.B.A., and Mr. Godfrey J. S. Segar-Owen, A.R.I.B.A. The present office and staff at 28, Albemarle-street, W.1, which will be carried on under the personal management of Mr. Godfrey Segar-Owen, will be run in conjunction with the Warrington branch, remaining under the management of Mr. Geoffrey Owen. The executors also wish it to be known that the estate of the late Mr. W. Courtenay Le Maitre is still interested in the work entrusted to this practice, which will, in future, be known as:—Messrs. Le Maitre and William and Segar Owen.

Architect's Distinction.

The honorary degree of M.Arch. is to be conferred on Mr. S. Colwyn Foulkes, A.R.I.B.A., A.M.T.P.I., by the University of Liverpool, on July 4.

National University of Ireland.

The Senate of the National University has decided to confer the Honorary Degree of M.Arch. on Sir Banister Fletcher, F.S.A., P.R.I.B.A., F.R.G.S., and Professor Rudolph Butler, F.R.I.B.A.

London Artists' Association.

An exhibition of paintings by members of the London Artists' Association will be held at the Batsford Gallery, 15, North Audley-street, W.1, from Friday, June 5, until Saturday, June 27th, 1931 (weekdays 10 to 6; Saturdays 10 to 1).

New Masonic Hall, Belfast.

The committee of members of the Masonic Order appointed to consider the scheme for the erection of a Masonic Hall on Crumlin-road, Belfast, have appointed as their architect Mr. John MacGeagh, A.R.I.B.A., of 23, Ocean Buildings. Preliminary suggestions have been discussed, and the architect has been instructed to proceed with full preliminary drawings.

The London Building Act.

London County Council Advisory Building Committee is considering the regulations imposed by the London Building Act in reference to the possibilities of constructing higher and better buildings. The chairman, Sir Robert Tasker, is making a five days' visit to New York to study the building regulations and conditions there.

Maidstone Art and Crafts Society.

This Society was founded about twelve months ago, one of the founders and the first chairman being Mr. Sidney H. Loweth, F.R.I.B.A., the deputy county architect. The Society exists to encourage the study and practice of the arts and crafts. It arranges for lectures and discussions, for the exhibition and criticism of works, and for visits to illustrative examples of craftsmanship, in both its wide and detailed application. The first exhibition was opened on Saturday last by the President, Sir Martin Conway, M.P. About 150 people were present, after which tea was served in the School of Art adjoining.

History of Science and Technology.

Men of science from all parts of the world who are interested in the history and evolution of their subjects will be meeting at the Second International Congress of the History of Science and Technology, to be held in London between June 29 and July 4, under the presidency of Dr. Charles Singer. The Congress is held under the auspices of the *Comité International d'Histoire des Sciences*, with the collaboration of the *Comité International des Sciences Historiques*, the Newcomen Society for the Study of the History of Engineering and Technology, and the History of Science Society. Inquiries concerning membership and meetings of the Congress should be addressed to one of the honorary secretaries, Mr H. W. Dickinson, or Mr. Walter Adams, the Science Museum, South Kensington.

Chartered Surveyors' President.

Mr. John Evans Bidwell has been elected president of the Chartered Surveyors' Institution, a position which his father, the late Mr. Charles Bidwell, of Ely, filled in 1905. Mr. J. E. Bidwell, who succeeds Mr. E. H. Leeder, is the senior partner in the firm of Messrs. Bidwell & Sons, chartered surveyors, of Cambridge, Ely, and Ipswich, a business founded by Mr. Bidwell's grandfather nearly 100 years ago. Mr. Bidwell was educated at Charterhouse and Trinity College, Cambridge.

London University New Buildings.

The scheme for the new University of London is shortly to go forward. It is estimated that the whole of the proposed buildings and the site will cost something in the neighbourhood of £3,000,000, and the building scheme will take some years to complete. The first stage will probably be the Central Hall, or administrative block, the University Library, the University Hall, and other specialised sections. Demolition and preparation of the site of ten acres on the north side of the British Museum has been going on for some time. Mr. Charles Holden, F.R.I.B.A., senior partner at Messrs. Adams, Holden & Pearson, has been appointed to execute the work.

KING'S BIRTHDAY HONOURS.

The following names in the Birthday Honours are of interest to our readers:—

Knights.

Peers, Charles Reed, C.B.E., M.A., F.B.A., F.R.I.B.A.

Reynolds - Stephens, William Ernest, P.R.B.S.

O.B.E. (Civil Division).

Hanton, Peter Kydd, M.B.E., A.R.I.B.A., Senior Architect, H.M. Office of Works.

Twist, Edward, Architect, Works Division, Ministry of Finance, Northern Ireland.

Mr. C. R. Peers, who receives a Knighthood, has been the Chief Inspector of Ancient Monuments, H.M. Office of Works, since 1913. He is 63, and was a pupil of Sir T. G. Jackson. He has had an association since 1901 with the Society of Antiquaries, being Secretary from 1908 to 1921, when he was appointed Director. He is now President.

COMPETITION NEWS

Scarborough Hospital Competition.

The President of the Royal Institute of British Architects has nominated Mr. Hubert M. Fairweather, F.R.I.B.A., as assessor in the above competition.

Bristol War Memorial.

The three designs for this memorial chosen by the assessor, Mr. G. C. Lawrence, F.R.I.B.A., have been issued with the ballot form now being used by the public. It is expected that the result of the ballot will be known about the middle of next week.

A Brighton Improvement Scheme.

Schemes for dealing with a big municipally owned site in West-street, Brighton, are shortly to be invited by the Brighton Corporation by competition among architects. The corporation have in mind a scheme estimated to cost about £150,000, and comprising sea-water swimming baths, medical baths, a rheumatic clinic, and possibly an indoor bowling green. When Mr. Kenneth M. B. Cross, F.R.I.B.A. (Messrs. A. W. S. and K. M. B. Cross, F.R.I.B.A.) was appointed as assessor to judge the plans submitted, his own preliminary design so pleased the corporation that they proposed to appoint him as architect for the project, but to this appointment the Royal Institute of British Architects took exception as being contrary to their regulations. The corporation have, therefore, promoted a competition with awards which are to exceed £2,000.

COMPETITIONS OPEN.

Proposed extensions to Ingham Infirmary, South Shields, for Committee. Premiums of £250, £100 and £50. Mr. George Reavell, F.R.I.B.A., Alnwick, assessor. Conditions, dep. £2 2s., from Mr. J. Potter, Secretary of the Infirmary. Open to architects within area of Northern Architectural Association	Particulars published in "Builder." Feb. 13	Sending in date. June 16
New school for Governors of King Edward VI School, Southampton. Premiums, £150, £100, £50. Mr. S. Tatchell, F.R.I.B.A., assessor. Conditions from Mr. G. A. Waller, 7, Albion Place, Southampton	April 10	June 24
Corporation Offices, Charles-street, for Leicester T.C. Premiums, £300, £200, £100. Mr. E. Berry Webber, A.R.I.B.A., assessor. Conditions from Mr. A. T. Gooseman, M.Inst.C.E., City Engineer, Town Hall. Dep. £2 2s.	Particulars published in "Builder." Mar. 20	Sending in date. June 2
Branch Baths, Foleshill, for Coventry T.C. Premiums of £210, £105 and £52s. 10s. Mr. F. J. Horth, F.R.I.B.A., assessor. Conditions from Mr. F. Smith, Town Clerk, Council House. Dep. £1 1s.	Mar. 20	June 30
Street improvement scheme, for Walsall T.C. Open to local architects only. Premiums, 50 gns. and 20 gns. Mr. George Drysdale, F.R.I.B.A., assessor. Conditions from Borough Surveyor, Council House. Dep. £1 1s.	May 22	July 17
Nurses' Home, Royal Asylum, Montrose, for Directors. East Scottish architects only. Mr. John Watson, F.R.I.B.A., assessor. Conditions from Clerk, Royal Asylum, Montrose. Dep. £1 1s.	May 29	July 31
Designs for public baths, police and fire stations, Sessions Court, on site in Campbell-square, for Northampton T.C. Mr. Percy Thomas, F.R.I.B.A., assessor. £500, £400, £300 and £200 premiums. Conditions from Town Clerk, Guildhall. Dep. £2 2s.	May 15	Sept. 21
Central Library, for Birkenhead T.C. Open to local architects only. Premiums, £250, £175, £100. Mr. A. N. Prentice, F.R.I.B.A., assessor. Conditions from Mr. E. W. Tame, Town Clerk. Dep. £2 2s.	May 22	Sept. 30
R.I.B.A. new premises. Assessors, Messrs. R. Atkinson, Charles Holden, H. V. Lanchester, P. S. Worthington, and Sir Giles Scott. Premiums, £500 and £750 among runners-up. All questions must reach the Secretary, 9, Condnit-street, W.1, by August 4	April 10	1932 March 31
Tuberculosis hospital, Sully, near Cardiff, for Welsh National Memorial Hospital. Messrs. C. E. Elcock, F.R.I.B.A., and T. Alwyn Lloyd, F.R.I.B.A., assessors. Premiums, £400, £300, £175 and £100. Applications for Conditions (before June 29) to Mr. F. J. Alban, Memorial Offices, Westgate-street, Cardiff. Dep. £2 2s.	May 29	—

CORRESPONDENCE

The R.I.B.A. and the Institute of Builders.

SIR,—The correspondence in your journal during the past year cannot fail to have conveyed the impression to your readers that the views of the Royal Institute of British Architects and the Institute of Builders were widely divergent on such matters as by-laws, registration and the form of contract.

Misunderstandings easily arise, and if not removed may develop into permanent distrust and definite antagonism.

In our opinion the building industry, in which our respective Institutes are so deeply concerned, is too important and far-reaching to allow misunderstandings to retard its progress, and it is therefore with great pleasure that we are able to inform you that, as the result of informal conferences which have taken place between our respective bodies, these differences have been removed. We are confident that the goodwill and public spirit of our members will ensure that for the future our efforts towards the advancement of education and the progress of building in general will be inspired by mutual confidence and understanding.

BANISTER FLETCHER,
President of the Royal Institute of British Architects.

R. L. ROBERTS,
President of the Institute of Builders.

The Registration of Architects.

SIR,—I have received a very large number of communications from municipal surveyors on the above subject. Many of these communications are in the nature of an inquiry as to the position of municipal surveyors and engineers under the Architects' (Registration) Bill when it becomes an Act.

The Bill, of course, is for the registration of architects, and not for the registration of surveyors and engineers as such. I am aware that many municipal surveyors are responsible for the carrying out of work of an architectural nature for their authorities, *e.g.*, housing schemes, pumping and power stations, pavilions, and so on. In some cases, however, the actual design and relevant drawings are executed by architectural assistants working under the borough surveyor, and, although the plans bear the latter's name, the work is actually done by someone else. In any case, the design of (say) a housing scheme does not necessarily denote a skilled knowledge of architecture.

The qualifications for registration, as laid down in the Bill, include the following paragraph:—

"(b) That his application for registration was made within two years from the commencement of this Act and that at the commencement of this Act he was, or had been, practising as an architect in the United Kingdom;" I am assured, officially, that a salaried or employed architect is included in the term "practising as an architect."

Registration is permissive, not compulsory, and it may be added usefully that there is nothing in the Bill preventing any local authority, corporate body or *person* from performing any act or operation in connection with the design or the construction of buildings which such local authority, corporate body, or *person* was entitled to perform before the passing of the Act, provided such persons do not use the title, "registered architect," unless they are, in fact, registered architects. For instance, there is nothing *in the Bill* to prevent a borough surveyor from using the title, "Architect to the ——— Council." Again, an architect who does not desire, or who does not consider it necessary, to register, is still entitled to use the title, "architect."

G. B. J. ATHOE, Secretary, I.A.A.S.

The New Zealand Earthquake: Task of Reconstruction.

SIR,—The committee of the British Empire League having given consideration to this matter, I am desired to suggest that it is an opportune time to recall the recent severe earthquake which occurred in New Zealand, and the financial burden that such a grave disaster must involve. Although many firms and private citizens have readily come forward with gifts of money to lighten the burden, yet, as no official appeal was issued in the United Kingdom, owing to those in authority in New Zealand valiantly agreeing that the cost of the extensive damage sustained should be borne by the Dominion, the sum that has been realised here through voluntary donations has naturally not reached so high a figure as it might otherwise have done.

Everyone will appreciate that a very heavy expenditure, amounting to millions of pounds, must be incurred by the Government and people of New Zealand in the course of repairing the vast and extensive damage arising from the earthquake, and, therefore, I should be glad to indicate how the people of the Motherland can help New Zealanders in the task which lies before them.

Obviously a great deal of building material and other requisites will have to be purchased to meet the demand that exists in consequence of so much destruction, and it will be to Great Britain that New Zealand will undoubtedly turn for most of her requirements in this connection. As a matter of actual fact, New Zealand is per capita the highest purchaser of British-made goods, buying annually from us more per head of the population than any other country in the world.

We can show our appreciation of her actions in this direction by increasing our purchases of her products, particulars of which can be obtained from the offices of the High Commissioner for New Zealand in London. In asking everyone to do this, I am not calling for any sacrifice, as every housewife knows that New Zealand products are of excellent quality, and, in addition, may be purchased at reasonable prices.

Quite apart from any sentimental reason, and without making an appeal that might be regarded as invidious to the products of our own country and other Dominions, I feel that this catastrophe provides a special reason to render some practical assistance to our kith and kin in New Zealand, more particularly in this her time of trouble.

STRADBROKE,
Chairman, British Empire League.

"THE BUILDER" DEBATE

XL.—LOCAL AUTHORITIES AND ARCHITECTS' PLANS.

SIR,—The whole strength and weakness of "Positive's" case turns on the qualifications he himself makes when he advocates a relaxation of the by-laws in favour of "*properly qualified* architects" as to the submission of plans.

As things are, and as they are likely to remain for a couple of generations, all that would be necessary in order to escape the necessity of submitting plans would be that the notices of intention to build should have, in a space to be provided, the name filled in of him who had drawn, or was to draw, the plans. From the point of view of the usual administrators of by-laws, he who can draw plans is an architect, and he is qualified because he can draw plans. This, of course, is delightfully simple, but it reduces "Positive's" proposition to something even more simple, because what it all comes to is that in the case of many small buildings there would be no need for plans at all when they were put up by Alexis Blank, architect and bricklayer. The right to add the word architect cannot be denied to him.

Granting, however, that the word *properly* is to be given due weight in the argument, we are still in great difficulty. Who is to decide as to what is a *properly qualified* architect? It has taken a considerable number of years to decide as to who is qualified for registration and even now, as far as I can gather, many architects are fighting shy of it. Does "Positive" imagine that the unwilling will register merely to avoid taking off one additional tracing for submission to the local authorities? They can, and some of them do, avoid this extra trouble by making the builder submit the plans under the provisions of the conditions of contract. For practical purposes in the absence of a register there is no means of defining what is a properly qualified architect, and consequently it would have to be left to the ruling of the chairmen of general purposes committees; these chairmen could, of course, consult their sanitary inspectors, and then I suppose all would be, well. . . .

Some day all architects, builders, craftsmen, building inspectors, sanitary inspectors, and all others connected with building will be properly trained and fully qualified to work without supervision. By that time the necessity for by-laws will have entirely disappeared and all claims to exemption will have passed with them. Meanwhile, claims to special exemption do no good, they merely exasperate by reason of their arrogance.

NEGATIVE.

A SCULPTURED FRIEZE

THE frieze which we illustrate on our frontispiece this week is on the new extension of the Institute of Chartered Accountants, Moorgate, E.C., which has been erected from the designs of Mr. J. J. Joass, F.R.I.B.A. The original frieze—of which the new frieze is a continuation—is the work of the late Sir Hamo Thornycroft, R.A. A female figure symbolising "Building" occupies the focal point of the frieze and is situated in Swan-alley. There are no fewer than 68 figures in Sir Hamo's frieze. Thirty-seven of these are in Moorgate-place and represent the Arts, Sciences, Education, Commerce, Manufactures, Agriculture and Mining. In Great Swan-alley 14 figures represent Railways, Shipping and the Colonies. Then comes the strip representing Building. There are 17 figures here, and each is an imaginary portrait of notable architects and builders representing the development of the art of building from the earliest times to the present day. The new portion of the frieze, which is 50 ft. in length—making a total length of 190 ft.—had its subject determined by the existing symbolic figure—and the sculptor, Mr. J. A. Stevenson, has portrayed the history of the building from prehistoric times to the present day, the strange attire of ancient days being gradually and imperceptibly blended with the existing frieze. The Renaissance period of building is represented by such men as Chambers, Wren and Inigo Jones. The earlier period of Renaissance in Italy comes next and the rebirth of the classical period is suggested by a child. In this portion may be recognised portraits of Michael Angelo and Leonardo da Vinci. The Gothic period of building is next in order, and its ecclesiastical significance is suggested by the introduction of a priest. The Byzantine style has its most outstanding building S. Sofia-Constantinople indicated in model form. The Roman era of building, of which so much was done under military rule, is shown by a group of four figures, which include a centurion. Next is the Greek age.

The Assyrian period is shown next in order—then the Egyptian, with its bald-headed slave and a figure carrying a model of a pyramid—and, finally, a prehistoric man, clothed in a bearskin and carrying the material with which he built the entrance to his cave-dwelling. In "Palladio," we may recognise Sir Henry Tanner, the distinguished architect, and in the central figure of the Gothic group Mr. Ben Tillett, M.P.

ROYAL INSTITUTE OF BRITISH ARCHITECTS

MUSEUM PLANNING.

A PAPER on this subject was read by Mr. Eric Maclagan, C.B.E., Hon. A.R.I.B.A., at a meeting of the R.I.B.A., held on Monday evening at 9, Conduit-street, W., when the chair was occupied by the President, Sir Banister Fletcher, F.S.A. The lecturer said his main concern that evening was with the cases when museums could be planned from the outset, and not adapted from existing buildings. He supposed that in the opinion of the general public the outside of a building tended to rank as of primary importance; while those who used it were certainly much more concerned with its interior arrangements. London could offer a wide choice in styles for the exterior of a museum; the classical convention used by Sir Robert Smirke for the main building of the British Museum and the rather more modified classicism of Wilkins's National Gallery; the strangely transmogrified central French Romanesque of Waterhouse's Natural History Museum; the beautiful Italianate buildings designed by Captain Fowke, of the Royal Engineers, which formed the nucleus of the Victoria and Albert Museum, and the extensive French Renaissance additions which were built on in front of it by the late Sir Aston Webb. He could not help feeling that in most of these there had been a general tendency to be too palatial, to multiply ornament beyond what was really necessary for the purpose, and he must confess that when he was passing up Exhibition-road he sometimes felt a personal preference for the plainer but not less effective building in which the Science Museum was housed. He was not sure even that he did not like it still better before its façade was put on, if he dare confess to such a judgment.

The style chosen for the exterior was bound to condition, at any rate to some extent, the inside arrangements of a museum. It seemed, for example, hardly possible to secure satisfactory arrangements for side-lighting in any building laid out on at all strictly classical lines. But if it provided for adequate lighting, he felt sure that most museum officials would be glad enough to leave the exterior to the architect, although he would confess to a desire to see a large museum built on purely modern lines, an experiment which, so far as he knew, had not yet been tried even in America, although it very likely might have been attempted in Russia. It was the interior that they were apt to be dictatorial, or even cantankerous, about. There was, however, one point on which he would like to express an opinion, if only because it was one which might not be universally shared. He felt more and more convinced that where there was any choice as to the site of a museum, almost every other consideration should be sacrificed for centrality and accessibility. He supposed they might agree to allow the architect some say in the entrance hall and the staircases. Here, if anywhere, he had a right to be sumptuous within his means and to give the public some taste of his decorative ability; and yet he would remind the architect that even staircases provided a precious wall-space in these days of almost universal congestion, and that marble was not the best background for hanging; and that even entrance halls had to be used for every reasonable purpose to which they could be adapted. It was, however, with the exhibition rooms and galleries that the museum official was chiefly concerned. He thought there would be an almost universal agreement among them that in galleries intended for the exhibition of works of art almost all forms of architectural decoration were not merely superfluous but quite definitely detrimental to the main purpose for which such galleries were intended. Either they would clash with the style of the objects to be exhibited in close proximity to them (and this was much the most likely thing to happen, for, even if the architect was given some idea of what a room was to contain, it was extremely unlikely that this arrangement would be a final one), or by echoing a similar style or period they would, at best, distract the visitor's attention. He doubted if we should ever see again those deliberate attempts to design elaborate decorations in harmony with the contents of a court or gallery which were so prominent in some at least of our older museums.

Perhaps the worst mistake of all, in his own opinion, was to be found when a room was deliberately built and designed in a special style for the display of objects of a corresponding period and nationality. Such a criticism was in no way directed against the arrangement of period rooms considered as exhibits in themselves and not as settings for exhibits. Such rooms were among the most useful and certainly the most popular features of the museums where they could be provided, and a great deal of ingenuity had been lavished on their display in recent years, especially in America. But the absence of any form of decoration in a definite historic style was not the only factor in the adaptability which all museum officials would wish to see carried to its farthest point in the planning of a new museum. Some of the more recent American buildings had provided long continuous galleries which were separated into rooms by purely temporary partitions in one of the various materials now available for such a purpose. These partitions were so constructed that it was hardly more than a matter of a day's work to shift one of them along the gallery or to remove it altogether, thereby enlarging one of the rooms when the collections for which it was designed had grown. He need hardly point out that such an arrangement would be of enormous convenience in the life of a growing museum, and the absence of it often compelled a laborious and inconvenient shifting of a whole collection to some other part of the museum where it was perhaps less in place, but where additional room could be secured for it.

The question of lighting was essentially one for the architect, and perhaps exceeded in importance almost all others. It was complicated in every direction by subsidiary questions, and it seemed to him quite impossible to lay down any definite principles which could be followed without exception. It had, for example, been maintained that sculpture should always, if possible, be shown with a top light, and he had known this accepted as an axiom for the guidance of future museum officials. Yet he ventured to believe that the Italian Renaissance sculpture in the Victoria and Albert Museum, almost all of which was shown with a side light, produced at least as good an effect as any other similar collection, although he could wish that far more space was available and that the reliefs had not to be so crowded as they were at the present moment.

A side light, however, had its obvious disadvantages as well. One whole wall was inevitably lost, and the problem of reflections on the wall facing the windows became an acute one if glass had to be used. There was, further, the all-important and yet often predetermined question of aspect. It was clearly inadvisable that museum galleries should face south, if this could be avoided, when so many classes of museum objects were liable to suffer from fading; and it was one of the great defects of the buildings at the Victoria and Albert Museum that there was an almost complete absence of exhibition galleries with a north aspect.

Whatever the aspect of side-lighted rooms might be, it seemed to him of the highest importance that the architect should provide for windows to which blinds drawing up instead of down could be fitted. It was surely obvious that, as a rule, the most valuable light came from the upper part of the window, the most dangerous light from the lower, and it would be an invaluable boon if all windows, especially all windows through which there was a possibility of sunlight penetrating, could be so fitted that the lower parts could be covered and the upper parts left open in case of necessity—a small detail, but one which he felt sure deserved attention.

The question of reflections was one of extreme difficulty. It applied, above all, to paintings, but in a climate like ours so many classes of museum objects had also to be protected under glass that the reflection difficulty concerned museums hardly less than picture galleries. All those who had taken any interest in the subject would know something of the experiments which had recently been made in this country and elsewhere. The Marlay Gallery in the Fitzwilliam Museum at Cambridge, and the larger and, to his mind, less wholly successful gallery recently constructed on the same lines at the National Gallery; and the very elaborately planned one-sided room in the Tate Gallery were obvious and accessible examples, while a much larger gallery at the Fitzwilliam, constructed on similar lines, was to be opened in the course of the next three or four days. [We illustrate this work in the present issue.] In the galleries of the Fitzwilliam type the essential principle was that of wedge-shaped projections from the walls, largely increasing the amount of space and allowing for division of the pictures into appropriate groups—in itself no small advantage; together with a top light confined to the sides of the gallery—the parts, that was, immediately over these wedge-shaped projections and the side walls separating them; while the centre of the gallery had a solid ceiling. The drawback to such an arrangement could be seen at the National Gallery, where the room in question ended with a wall on which a picture was shown with a lighting which was inevitably very inadequate. In the galleries of the Fitzwilliam both ends were in each case open, and this objection was thereby obviated.

The room at the Tate Gallery was on a very much more elaborate plan, and involved so prodigal an expenditure of space that it could never be very generally introduced. A somewhat similar but in his opinion much more successful arrangement had been carried out in a small gallery which seemed to him almost ideal, provided that the pictures to be shown were few and the available area was relatively considerable. He supposed almost the last place in which one would expect to find a thoroughly modern and scientifically constructed picture gallery was that ancient city of Bruges, but he strongly recommended anyone interested in museum planning to take the opportunity of visiting the recently opened picture gallery there, and he had little doubt that they would agree as to its admirable arrangement. In the Bruges Gallery there was a long passage or corridor of sufficient width, from which small compartments separated by side walls opened on the right. These compartments were lit by ordinary flat skylights, but the passage itself was unlighted. In consequence, pictures hung on the wall directly opposite to the passage were brilliantly illuminated and yet reflections had been to all intents and purposes eliminated completely. But such an arrangement was only practicable when the important pictures were very few and the space ample.

So far as this country was concerned, the methods of using electric light in museums had been fairly simple, although they had many minor varieties of lamps in use at South Kensington. Those who were interested in the question might have noticed the new system of flood lighting with daylight-coloured electric light in the Raphael Cartoon Galleries, which had at any rate partly solved the very difficult question of the visibility of those cartoons on dark days and after sunset. But in America, lighting systems of extraordinary elaboration and very great

effectiveness were now being almost invariably introduced in the newer museums. These normally took the form of a double glass roof with an installation of daylight-tinted electric bulbs between the two roofs. An intricate system of controls provided for the possibility of turning on these lights so gradually that as daylight died the introduction of artificial light was hardly noticed, and the visitor was merely conscious of a continued sufficiency of illumination. It was scarcely necessary to add that this system was costly, both in installation and in running expenses, owing to the large number of lamps which had to be employed, and, strangely enough, none of the American museums with which he was acquainted were regularly kept open at night in spite of these facilities, which were only employed towards the end of the afternoons in winter. Undoubtedly where the expense could be afforded such a method of installation of electric light in a top-lighted gallery came very near perfection.

Quite peculiar difficulties were presented by the lighting of furnished rooms, where completely modern electric fittings would be obviously out of place, and go far to destroy the effect which the room itself was intended to produce. A certain amount of concealed flood-lighting could, perhaps, be introduced without marked incongruity; a certain amount, again, could be done by the not very satisfactory device of electric sham candles, but in either case the result was not wholly congruous. He believed it to be better, however, than that obtained by the ingenious and elaborate device of a false ceiling, which had been introduced in the furnished rooms in the great new museum at Philadelphia. This museum, the first parts of which were opened only about three years ago, possessed an extremely fine series of panelled rooms, mostly removed from English houses, but their lighting had presented very special difficulties. Owing to the fact that the exterior was in the classical style, the position and size of the windows was strictly conditioned by the placing of the columns, and he need hardly say that the windows of the panelled rooms were seldom arranged with precisely the same intervals. Accordingly, a narrow space had been left between the outer walls of the museum and the walls of the panelled rooms, and this space was fitted up with strong daylight tinted electric lights, reflected back in some cases from a white wall through the window, but mixing with whatever daylight happened to be available so as to shine in through the windows of the rooms. This would in itself be more satisfactory if it were not for the fact that occasionally a similar artificial daylight came into the room from the opposite side through an open door, producing a slightly bewildering effect. But a further source of illumination was provided by the apparent ceiling of the panelled room being sunk some distance below the real ceiling, so as to leave a space of a foot or so between its outer edge and the cornice of the room. Along this gap invisible electric lights were arranged so that a brilliant illumination could be thrown down the walls of the room. But this scheme had the double disadvantage of throwing the ceiling itself into deep shadow, and thereby producing an effect altogether unnatural and of casting very noticeable shadows under any projection on the wall, such as a framed picture; and, ingenious as it was, he could not believe the method was one to be recommended. The Philadelphia Museum, at any rate as at present arranged, exemplified in a rather extreme degree the marked preference shown by many American museum officials and private collectors for electric light as against daylight; some of the principal picture galleries had no provision for natural lighting at all. However efficient artificial lighting might be, he believed there could be no doubt that in Europe we should always regard it as a second best, and that we should be right in doing so.

It was, however, to America also that we had to look for the most elaborate and successful devices for the ventilation of museums and the purification of the air in them. In several of the more modern museums, such as Cleveland and Baltimore, no air was directly admitted from outside. The whole ventilation of the galleries was carried out by a complicated apparatus in which the air was sucked in by fans and driven through fine water-sprays, so as to wash and cool it before it was admitted through muslin filtering screens into the building itself. It could be warmed or cooled to any desired temperature, and it was claimed that the amount of dirt and dust that actually entered the museum was infinitesimal, the entrance doors being, of course, all fitted on the revolving principle. Whether it would be possible to adapt such a system to a museum with the enormous extent of the British Museum or the Victoria and Albert Museum, supposing that it could be built again from the foundation, was a problem he was not competent to solve.

When they came to the consideration of the actual lay-out of the museum he supposed there were three interests which had to be considered—those of the staff, those of special students, and those of the general public, the last being by far the most important. It would be very difficult to lay down any definite principles as to the construction of offices for a staff which ran into considerable numbers. Probably there would be general agreement that these offices should be separated from one another, and that each should be in as close contact as possible with its own departmental galleries. There was an immense convenience about the contrary system, which prevailed, for example, in the Louvre and in the Kaiser Friedrich Museum at Berlin, where all the offices were concentrated in one block. But there were compensating disadvantages, as anyone would remember who had called unannounced on an official at the Louvre, only to find that he was working at the opposite end of the interminable building. But the universal introduction of the telephone had greatly minimised the difficulties inherent in the separation of departmental offices. If they could be provided with reasonably quiet and not too cramped quarters, he did not think one would find museum officials unduly difficult to please in this respect. They would not hope in this country for the amenities which some American museums provided, in one of which, at any rate, a deck tennis court and a gymnasium were at the service of the staff.

The special student would ask for more and would probably see that he got it. There must in most departments be some kind of study room available in which objects could be handled and examined in quiet under adequate supervision; although the needs in this respect must vary with the work of the department. And it was for the special student in the main that museums required libraries and lecture theatres. The problems of library planning were very special ones, and architects must by now be widely acquainted with them, while of lecture theatres admirable models existed both in this country and in the United States. In some of the American museums the lecture theatres were extraordinarily well arranged and furnished. He would like to give a particular word of praise to that in the Fogg Museum at Cambridge, Massachusetts, with its excellent special ventilating system and its thoughtful provision for every need, both of the lecturer and of the audience.

It was much more difficult to speak of the special provision for the needs of the general public, but one or two small points might be mentioned. A lift or lifts in a museum were greatly appreciated, but their utility was enormously diminished if it was impossible to get access to them without going up or down stairs or even without a long walk. And, apart from this surely rather obvious proviso, he could not help thinking that architects might sometimes be more considerate to the infirm when they were designing the entrances to our larger museums. Those who found a real difficulty in walking, or at any rate climbing stairs, could hardly get their full value out of lifts if they had to begin with a laborious ascent to the main entrance, whereas if, at any rate, one entrance on the ground level was provided, it was extraordinary how much could be done, even for a complete cripple, with wheeled chairs and reasonably situated lifts. He imagined that in any newly planned museum variations in floor level would be reduced to a minimum, if not avoided altogether, not merely for the convenience of the infirmer visitors, but in order to facilitate the moving of objects and cases from one part of the museum to another on wheeled trucks or slides.

The most important and the most difficult of all questions in connection with museum planning was that involved in the accessible display, or, at any rate, the accessible storage, of subsidiary collections.

One particular form of museum storage fell within the architect's province, and was of especial interest (quite apart from its obvious convenience), in that, so far as he knew, it was not yet in use in Europe or, at any rate, in this country. He alluded to the ingenious provision for housing pictures which had been installed in several of the more recent American museums. At the Fogg Museum, for example, a room had been fitted up for the storage and study of unexhibited pictures, in which the half of the room opposite to the windows had a series of high wire screens reaching from the floor to the ceiling and placed about two feet apart from one another. These screens were mounted on metal rollers above and below, and could easily be pulled out with a simple movement of the arm. The pictures were hung on the wires on each side of the screen, and there was sufficient space between them for a student or visitor to make his way along the screen and get some idea of what its contents were. As soon as he saw a picture of any interest to him he could pull out the screen, and if he wished to make a careful study of it the picture could be unhooked from the wires in a moment and placed on an easel in one of the windows. At Cleveland still further advantage had been taken of the available space by having the screens alternately placed on each side of a room with artificial light above the ceiling, so that the screens, when pulled out, fitted into the spaces between those on the opposite side of the room. By this means an almost unlimited number of pictures, even if they were of considerable size, could be accessibly stored in a room of relatively small dimensions, and could yet be readily available to anyone who was allowed access to it.

But these were only palliatives of that disease of over-congestion from which we were all, or almost all, suffering. There was only one complete and universally satisfactory solution, but unfortunately it had never yet, so far as he knew, been wholly realised, and there were almost insuperable difficulties in the way of even attempting it in a building which had not been expressly constructed with that end in view. He believed the idea of two separate, but parallel, exhibited collections, one for the ordinary visitor (and he felt that the ordinary visitor was the person who had the first right to consideration) and the other for the special student, was first seriously considered in the planning of the Museum of Fine Arts at Boston early in the present century. The arrangement there proposed, in its simplest terms, was that the first floor should contain all the finest and most important examples in the various departments displayed with the maximum of space and with every encouragement for æsthetic enjoyment as well as study; while the corresponding rooms and galleries of the ground floor should contain the other objects belonging to the same departments equally accessible to the public, but shown with less space and under comparatively crowded conditions; conditions, in fact, similar to those of the choicest galleries in our London museums. This plan had, in fact, as he thought the officials of that admirable museum would be the first to admit, to a large extent broken down in practice, but in some departments—as, for

ROYAL INSTITUTE OF BRITISH ARCHITECTS

MUSEUM PLANNING.

A PAPER on this subject was read by Mr. Eric Maclagan, C.B.E., Hon. A.R.I.B.A., at a meeting of the R.I.B.A., held on Monday evening at 9, Conduit-street, W., when the chair was occupied by the President, Sir Banister Fletcher, F.S.A. The lecturer said his main concern that evening was with the cases when museums could be planned from the outset, and not adapted from existing buildings. He supposed that in the opinion of the general public the outside of a building tended to rank as of primary importance; while those who used it were certainly much more concerned with its interior arrangements. London could offer a wide choice in styles for the exterior of a museum; the classical convention used by Sir Robert Smirke for the main building of the British Museum and the rather more modified classicism of Wilkins's National Gallery; the strangely transmogrified central French Romanesque of Waterhouse's Natural History Museum; the beautiful Italianate buildings designed by Captain Fowke, of the Royal Engineers, which formed the nucleus of the Victoria and Albert Museum, and the extensive French Renaissance additions which were built on in front of it by the late Sir Aston Webb. He could not help feeling that in most of these there had been a general tendency to be too palatial, to multiply ornament beyond what was really necessary for the purpose, and he must confess that when he was passing up Exhibition-road he sometimes felt a personal preference for the plainer but not less effective building in which the Science Museum was housed. He was not sure even that he did not like it still better before its façade was put on, if he dare confess to such a judgment.

The style chosen for the exterior was bound to condition, at any rate to some extent, the inside arrangements of a museum. It seemed, for example, hardly possible to secure satisfactory arrangements for side-lighting in any building laid out on at all strictly classical lines. But if it provided for adequate lighting, he felt sure that most museum officials would be glad enough to leave the exterior to the architect, although he would confess to a desire to see a large museum built on purely modern lines, an experiment which, so far as he knew, had not yet been tried even in America, although it very likely might have been attempted in Russia. It was the interior that they were apt to be dictatorial, or even cantankerous, about. There was, however, one point on which he would like to express an opinion, if only because it was one which might not be universally shared. He felt more and more convinced that where there was any choice as to the site of a museum, almost every other consideration should be sacrificed for centrality and accessibility. He supposed they might agree to allow the architect some say in the entrance hall and the staircases. Here, if anywhere, he had a right to be sumptuous within his means and to give the public some taste of his decorative ability; and yet he would remind the architect that even staircases provided a precious wall-space in these days of almost universal congestion, and that marble was not the best background for hanging; and that even entrance halls had to be used for every reasonable purpose to which they could be adapted. It was, however, with the exhibition rooms and galleries that the museum official was chiefly concerned. He thought there would be an almost universal agreement among them that in galleries intended for the exhibition of works of art almost all forms of architectural decoration were not merely superfluous but quite definitely detrimental to the main purpose for which such galleries were intended. Either they would clash with the style of the objects to be exhibited in close proximity to them (and this was much the most likely thing to happen, for, even if the architect was given some idea of what a room was to contain, it was extremely unlikely that this arrangement would be a final one), or by echoing a similar style or period they would, at best, distract the visitor's attention. He doubted if we should ever see again those deliberate attempts to design elaborate decorations in harmony with the contents of a court or gallery which were so prominent in some at least of our older museums.

Perhaps the worst mistake of all, in his own opinion, was to be found when a room was deliberately built and designed in a special style for the display of objects of a corresponding period and nationality. Such a criticism was in no way directed against the arrangement of period rooms considered as exhibits in themselves and not as settings for exhibits. Such rooms were among the most useful and certainly the most popular features of the museums where they could be provided, and a great deal of ingenuity had been lavished on their display in recent years, especially in America. But the absence of any form of decoration in a definite historic style was not the only factor in the adaptability which all museum officials would wish to see carried to its farthest point in the planning of a new museum. Some of the more recent American buildings had provided long continuous galleries which were separated into rooms by purely temporary partitions in one of the various materials now available for such a purpose. These partitions were so constructed that it was hardly more than a matter of a day's work to shift one of them along the gallery or to remove it altogether, thereby enlarging one of the rooms when the collections for which it was designed had grown. He need hardly point out that such an arrangement would be of enormous convenience in the life of a growing museum, and the absence of it often compelled a laborious and inconvenient shifting of a whole collection to some other part of the museum where it was perhaps less in place, but where additional room could be secured for it.

The question of lighting was essentially one for the architect, and perhaps exceeded in importance almost all others. It was complicated in every direction by subsidiary questions, and it seemed to him quite impossible to lay down any definite principles which could be followed without exception. It had, for example, been maintained that sculpture should always, if possible, be shown with a top light, and he had known this accepted as an axiom for the guidance of future museum officials. Yet he ventured to believe that the Italian Renaissance sculpture in the Victoria and Albert Museum, almost all of which was shown with a side light, produced at least as good an effect as any other similar collection, although he could wish that far more space was available and that the reliefs had not to be so crowded as they were at the present moment.

A side light, however, had its obvious disadvantages as well. One whole wall was inevitably lost, and the problem of reflections on the wall facing the windows became an acute one if glass had to be used. There was, further, the all-important and yet often predetermined question of aspect. It was clearly inadvisable that museum galleries should face south, if this could be avoided, when so many classes of museum objects were liable to suffer from fading; and it was one of the great defects of the buildings at the Victoria and Albert Museum that there was an almost complete absence of exhibition galleries with a north aspect.

Whatever the aspect of side-lighted rooms might be, it seemed to him of the highest importance that the architect should provide for windows to which blinds drawing up instead of down could be fitted. It was surely obvious that, as a rule, the most valuable light came from the upper part of the window, the most dangerous light from the lower, and it would be an invaluable boon if all windows, especially all windows through which there was a possibility of sunlight penetrating, could be so fitted that the lower parts could be covered and the upper parts left open in case of necessity—a small detail, but one which he felt sure deserved attention.

The question of reflections was one of extreme difficulty. It applied, above all, to paintings, but in a climate like ours so many classes of museum objects had also to be protected under glass that the reflection difficulty concerned museums hardly less than picture galleries. All those who had taken any interest in the subject would know something of the experiments which had recently been made in this country and elsewhere. The Marlay Gallery in the Fitzwilliam Museum at Cambridge, and the larger and, to his mind, less wholly successful gallery recently constructed on the same lines at the National Gallery; and the very elaborately planned one-sided room in the Tate Gallery were obvious and accessible examples, while a much larger gallery at the Fitzwilliam, constructed on similar lines, was to be opened in the course of the next three or four days. [We illustrate this work in the present issue.] In the galleries of the Fitzwilliam type the essential principle was that of wedge-shaped projections from the walls, largely increasing the amount of space and allowing for division of the pictures into appropriate groups—in itself no small advantage; together with a top light confined to the sides of the gallery—the parts, that was, immediately over these wedge-shaped projections and the side walls separating them; while the centre of the gallery had a solid ceiling. The drawback to such an arrangement could be seen at the National Gallery, where the room in question ended with a wall on which a picture was shown with a lighting which was inevitably very inadequate. In the galleries of the Fitzwilliam both ends were in each case open, and this objection was thereby obviated.

The room at the Tate Gallery was on a very much more elaborate plan, and involved so prodigal an expenditure of space that it could never be very generally introduced. A somewhat similar but in his opinion much more successful arrangement had been carried out in a small gallery which seemed to him almost ideal, provided that the pictures to be shown were few and the available area was relatively considerable. He supposed almost the last place in which one would expect to find a thoroughly modern and scientifically constructed picture gallery was that ancient city of Bruges, but he strongly recommended anyone interested in museum planning to take the opportunity of visiting the recently opened picture gallery there, and he had little doubt that they would agree as to its admirable arrangement. In the Bruges Gallery there was a long passage or corridor of sufficient width, from which small compartments separated by side walls opened on the right. These compartments were lit by ordinary flat skylights, but the passage itself was unlighted. In consequence, pictures hung on the wall directly opposite to the passage were brilliantly illuminated and yet reflections had been to all intents and purposes eliminated completely. But such an arrangement was only practicable when the important pictures were very few and the space ample.

So far as this country was concerned, the methods of using electric light in museums had been fairly simple, although they had many minor varieties of lamps in use at South Kensington. Those who were interested in the question might have noticed the new system of flood lighting with daylight-coloured electric light in the Raphael Cartoon Galleries, which had at any rate partly solved the very difficult question of the visibility of those cartoons on dark days and after sunset. But in America, lighting systems of extraordinary elaboration and very great

effectiveness were now being almost invariably introduced in the newer museums. These normally took the form of a double glass roof with an installation of daylight-tinted electric bulbs between the two roofs. An intricate system of controls provided for the possibility of turning on these lights so gradually that as daylight died the introduction of artificial light was hardly noticed, and the visitor was merely conscious of a continued sufficiency of illumination. It was scarcely necessary to add that this system was costly, both in installation and in running expenses, owing to the large number of lamps which had to be employed, and, strangely enough, none of the American museums with which he was acquainted were regularly kept open at night in spite of these facilities, which were only employed towards the end of the afternoons in winter. Undoubtedly where the expense could be afforded such a method of installation of electric light in a top-lighted gallery came very near perfection.

Quite peculiar difficulties were presented by the lighting of furnished rooms, where completely modern electric fittings would be obviously out of place, and go far to destroy the effect which the room itself was intended to produce. A certain amount of concealed flood-lighting could, perhaps, be introduced without marked incongruity; a certain amount, again, could be done by the not very satisfactory device of electric sham candles, but in either case the result was not wholly congruous. He believed it to be better, however, than that obtained by the ingenious and elaborate device of a false ceiling, which had been introduced in the furnished rooms in the great new museum at Philadelphia. This museum, the first parts of which were opened only about three years ago, possessed an extremely fine series of panelled rooms, mostly removed from English houses, but their lighting had presented very special difficulties. Owing to the fact that the exterior was in the classical style, the position and size of the windows was strictly conditioned by the placing of the columns, and he need hardly say that the windows of the panelled rooms were seldom arranged with precisely the same intervals. Accordingly, a narrow space had been left between the outer walls of the museum and the walls of the panelled rooms, and this space was fitted up with strong daylight tinted electric lights, reflected back in some cases from a white wall through the window, but mixing with whatever daylight happened to be available so as to shine in through the windows of the rooms. This would in itself be more satisfactory if it were not for the fact that occasionally a similar artificial daylight came into the room from the opposite side through an open door, producing a slightly bewildering effect. But a further source of illumination was provided by the apparent ceiling of the panelled room being sunk some distance below the real ceiling, so as to leave a space of a foot or so between its outer edge and the cornice of the room. Along this gap invisible electric lights were arranged so that a brilliant illumination could be thrown down the walls of the room. But this scheme had the double disadvantage of throwing the ceiling itself into deep shadow, and thereby producing an effect altogether unnatural and of casting very noticeable shadows under any projection on the wall, such as a framed picture; and, ingenious as it was, he could not believe the method was one to be recommended. The Philadelphia Museum, at any rate as at present arranged, exemplified in a rather extreme degree the marked preference shown by many American museum officials and private collectors for electric light as against daylight; some of the principal picture galleries had no provision for natural lighting at all. However efficient artificial lighting might be, he believed there could be no doubt that in Europe we should always regard it as a second best, and that we should be right in doing so.

It was, however, to America also that we had to look for the most elaborate and successful devices for the ventilation of museums and the purification of the air in them. In several of the more modern museums, such as Cleveland and Baltimore, no air was directly admitted from outside. The whole ventilation of the galleries was carried out by a complicated apparatus in which the air was sucked in by fans and driven through fine water-sprays, so as to wash and cool it before it was admitted through muslin filtering screens into the building itself. It could be warmed or cooled to any desired temperature, and it was claimed that the amount of dirt and dust that actually entered the museum was infinitesimal, the entrance doors being, of course, all fitted on the revolving principle. Whether it would be possible to adapt such a system to a museum with the enormous extent of the British Museum or the Victoria and Albert Museum, supposing that it could be built again from the foundation, was a problem he was not competent to solve.

When they came to the consideration of the actual lay-out of the museum he supposed there were three interests which had to be considered—those of the staff, those of special students, and those of the general public, the last being by far the most important. It would be very difficult to lay down any definite principles as to the construction of offices for a staff which ran into considerable numbers. Probably there would be general agreement that these offices should be separated from one another, and that each should be in as close contact as possible with its own departmental galleries. There was an immense convenience about the contrary system, which prevailed, for example, in the Louvre and in the Kaiser Friedrich Museum at Berlin, where all the offices were concentrated in one block. But there were compensating disadvantages, as anyone would remember who had called unannounced on an official at the Louvre, only to find that he was working at the opposite end of the interminable building. But the universal introduction of the telephone had greatly minimised the difficulties inherent in the separation of departmental offices. If they could be provided with reasonably quiet and not too cramped quarters, he did not think one would find museum officials unduly difficult to please in this respect. They would not hope in this country for the amenities which some American museums provided, in one of which, at any rate, a deck tennis court and a gymnasium were at the service of the staff.

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The most important and the most difficult of all questions in connection with museum planning was that involved in the accessible display, or, at any rate, the accessible storage, of subsidiary collections.

One particular form of museum storage fell within the architect's province, and was of especial interest (quite apart from its obvious convenience), in that, so far as he knew, it was not yet in use in Europe or, at any rate, in this country. He alluded to the ingenious provision for housing pictures which had been installed in several of the more recent American museums. At the Fogg Museum, for example, a room had been fitted up for the storage and study of unexhibited pictures, in which the half of the room opposite to the windows had a series of high wire screens reaching from the floor to the ceiling and placed about two feet apart from one another. These screens were mounted on metal rollers above and below, and could easily be pulled out with a simple movement of the arm. The pictures were hung on the wires on each side of the screen, and there was sufficient space between them for a student or visitor to make his way along the screen and get some idea of what its contents were. As soon as he saw a picture of any interest to him he could pull out the screen, and if he wished to make a careful study of it the picture could be unhooked from the wires in a moment and placed on an easel in one of the windows. At Cleveland still further advantage had been taken of the available space by having the screens alternately placed on each side of a room with artificial light above the ceiling, so that the screens, when pulled out, fitted into the spaces between those on the opposite side of the room. By this means an almost unlimited number of pictures, even if they were of considerable size, could be accessibly stored in a room of relatively small dimensions, and could yet be readily available to anyone who was allowed access to it.

But these were only pallintives of that disease of over-congestion from which we were all, or almost all, suffering. There was only one complete and universally satisfactory solution, but unfortunately it had never yet, so far as he knew, been wholly realised, and there were almost insuperable difficulties in the way of even attempting it in a building which had not been expressly constructed with that end in view. He believed the idea of two separate, but parallel, exhibited collections, one for the ordinary visitor (and he felt that the ordinary visitor was the person who had the first right to consideration) and the other for the special student, was first seriously considered in the planning of the Museum of Fine Arts at Boston early in the present century. The arrangement there proposed, in its simplest terms, was that the first floor should contain all the finest and most important examples in the various departments displayed with the maximum of space and with every encouragement for æsthetic enjoyment as well as study; while the corresponding rooms and galleries of the ground floor should contain the other objects belonging to the same departments equally accessible to the public, but shown with less space and under comparatively crowded conditions; conditions, in fact, similar to those of the choicest galleries in our London museums. This plan had, in fact, as he thought the officials of that admirable museum would be the first to admit, to a large extent broken down in practice, but in some departments—as, for

example, that of Classical Art—it had been very largely maintained, and he believed had more than justified itself. There was no more difficulty in visiting the collections on the ground floor than those on the first floor, but the visitor to the first floor would find, to take an example, some two or three cases of picked Greek bronzes beautifully shown and labelled, and if he was satisfied with these he need see no more. If, on the other hand, Greek bronzes were what particularly attracted him, he had only to go down a staircase to find himself in an equally accessible room, where many more Greek bronzes were shown in carefully classified cases.

Now, it was surely possible to conceive of an ideal museum in which a similar arrangement could be applied to all the collections, and one could imagine a visitor entering such a museum and spending an hour or so in walking through the main collections; seeing and enjoying a comparatively small number of carefully selected examples of metalwork and ceramics, some tapestries, some carpets, some embroideries, some well-spaced and displayed furniture, some pictures, perhaps, and sculpture in appropriate surroundings. And when he had seen these he would know that he had got some idea if not of the best of the contents of the museum, at any rate of those objects which its temporary administrators believed to be representative of its treasures. But at the same time it might be hoped that our imaginary visitor would have started with a special predilection, let us say, for Continental china or for English eighteenth-century silver, and would wish in this particular department, or subdivision of a department, to see not only the finest of what the museum possessed, but so far as possible to discover everything that had been collected there, and maybe to compare his own possessions with those of the museum. Such a visitor would only have to pass either to another floor or to one of a set of parallel rooms in close proximity to the main collections to find there all that the museum possessed in the direction with which he was specially concerned. He would find it exhibited no doubt on a somewhat different principle and with less attention to æsthetic considerations, but (and this was essential if the system was really to be effective) he would have completely free access to such a room, if possible even without ringing a bell or writing his name in a book—two formalities which had for some unknown reason a quite incredibly deterrent effect on many visitors to museums. Such an arrangement as this could only be carried out if it had been contemplated in detail by the architect who designed the building. It was essential that there should, in some way or other, be immediate intercommunication between the two sets of galleries. It was no use whatever expecting that someone who had just admired your finest mediæval embroideries and wished to see more, should be informed that if he would go right along the gallery and then take the second turn to the left and up the staircase and ring the bell at Mr. So-and-So's office, he would be shown so far as possible what he wanted to see. The most obvious solution was that attempted at Boston with the collections on two floors, one immediately above the other; and it was a similar plan, though perhaps on an even more grandiose scale, which was being attempted in the new museum at Philadelphia. There, however, an interesting variation had been planned by which the main collections would be arranged culturally or according to period, while the subsidiary or study collections were to be arranged by material.

Sir Frederic Kenyon proposed a vote of thanks to the lecturer, which was seconded by Mr. A. M. Daniel and supported by Mr. Gilbert Jenkins, Professor Beresford Pite, Mr. E. T. Leeds, Sir Henry G. Lyons, Mr. R. Anning Bell and Mr. Francis Hooper. The President put the vote of thanks, and the lecturer briefly replied.

THE ROYAL SCOTTISH ACADEMY

The Royal Scottish Academy is to be congratulated on the enterprise it has shown this year in obtaining for its summer exhibition a number of works from abroad, both in architecture and sculpture. The general impression of the galleries allocated to these works is especially satisfactory; both judicious selection and placing are noticeable, and the appearance of the rooms is attractive, even to those who usually refer to them as a dull section of the exhibition; certainly they appear unusually interesting.

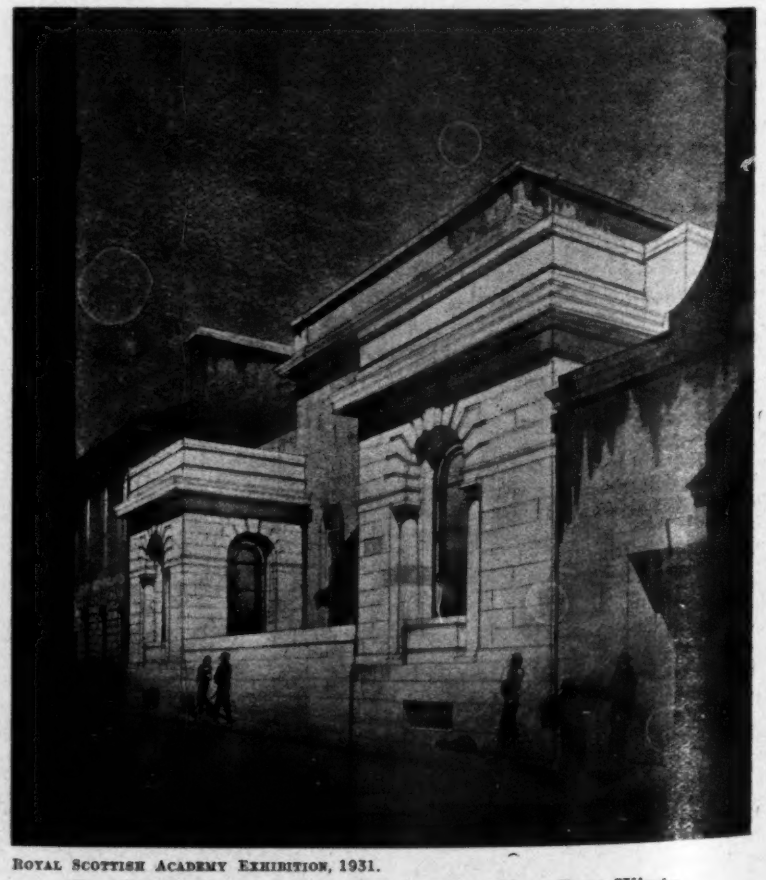
The policy of inviting works from abroad has on many occasions been carried too far, and local talent for that reason has found inadequate space; yet from both the public and the students' point of view it is desirable that opportunity should be given to see and study the works and methods of artists and craftsmen outside our own country, and there is growing evidence that this feeling is reciprocal. This year a good balance has been maintained between loan and local subjects, and the Council has very wisely given increased hanging space on the walls adjoining the recognised architectural room.

Architecture.

The architectural exhibits may be divided into the following groups:—(a) Loan, (b) Memorial Exhibits, and (c) Works of Living Scottish Architects. The loan group, which comes from America, attracts attention owing to the scale of the buildings shown, either by drawing or photograph, and by excellent and finished draughtsmanship. This latter quality is very evident in a series of drawings lent by the office of Mr. Russell Pope, of New York. There are in all twelve frames from that firm, seven of which are designs submitted in competition for the Roosevelt Memorial at Washington, and five for a similar memorial in New York. Both sets of designs show a scholarly treatment, with cleverly delineated lay-out plans. The Washington Memorial, of classic design, is extremely impressive owing to its magnitude; the design is conventional in treatment but refined in detail. The drawings and details shown are enhanced by fine draughtsmanship, which, if to a certain extent mechanical in production, is yet noteworthy in these days when draughtsmanship is too often slipshod and detail carefully blanketed. The New York Memorial is less imposing and more stereotyped, yet dignified in composition, and it will rank among the important architectural efforts in that city.

The contributions from the Goodhue Associates, Messrs. Mayers, Murray and Phillip, consist of four frames of enlarged exterior and interior photographs of the Church of the Heavenly Rest, and a large size photograph of the Chancel of St. Bartholomew's Church. Both are recently built churches in New York City, and are known in this country from American publications. They are dignified, full of interesting detail, and on traditional lines. It is unfortunate that so much of the church work in America suggests an atmosphere of opulence, and the physical comfort that wealth produces. The same firm sends a large frame of photographs of two delightful country residences in Hawaii—a free adaptation of old Californian houses, set in pleasant and sunny surroundings; also the drawing of a monumental building entitled "America's Tower of History." It is Gothic in character, but though interesting as a pile of masonwork, it leaves one rather cold.

Mr. Cass Gilbert has sent four frames, two of which are of new bridges in New York City, which are only in part architectural: the other two show a large-scale photograph of the New York Life Insurance Company's building in that city, and a preliminary pencil study for the same. The building as carried out is of vast size, but well balanced, cleverly fenestrated, and free from pronounced modernism. There is little similarity between the study and the finished building, but architecturally the former is



Royal Scottish Academy Exhibition, 1931.

The British Linen Bank, Edinburgh: New East Wings.

Mr. W. J. Walker Todd, A.R.S.A., Architect.

grouped in a more interesting manner and is more imposing.

Two frames containing photographs of "Skyscrapers," by Messrs. John M. Howells and Raymond M. Hood—one in New York and the other in Chicago—are typical of much modern American city architecture. They represent structures containing in one case 36 and in the other 56 stories.

Messrs. McKim, Mead and White, of New York, have contributed three representations of buildings of more normal size. This firm was responsible for a number of pre-War public buildings in New York, noteworthy for their refinement and traditional treatment, and the writer could wish that examples of the same standard of design had been exhibited.

It is impossible when criticising American buildings to judge them on all-fours with work in this country, requirements in America being so totally different. To our eyes the "skyscraper" has still in it an element of the strange and fantastic, but it also holds so strong a suggestion of spontaneous adaptability that one is inevitably forced to the conclusion that along these lines may lie the urban architecture of the future.

Memorial collections of the works of deceased architects constitute group B, and consist of works by the late John Kinross and the late James B. Dunn, both members of the Royal Scottish Academy. As these works have been exhibited in previous exhibitions it is unnecessary to deal with them in detail. Works of the former architect include his extremely scholarly work at Manderston, Duns, and various other buildings, ecclesiastical and domestic, including his design for a National Gallery in a suggested new square in Edinburgh. The work of this truly great artist always shows a high quality of design, and it is unfortunate that it is not more widely known.

Mr. Dunn's collection is of general domestic and commercial work, such as Haggerston Castle, Northumberland, the *Scotsman* buildings, Edinburgh, and an interesting design sent in competition for insurance buildings in Glasgow.

The work of architects practising in Scotland forms group C, and comprises some very distinctive work. There are several frames of ecclesiastical work and church fittings. Mr. Reginald Fairlie sends a pencil coloured sketch of his interesting new University Chapel at St. Andrews.

Mr. H. O. Tarbolton contributes two frames of interior views of "The Church of Our Lady," Bangour. With outside walls of whinstone, and freestone used throughout the interior, the views give the impression of dignity and spaciousness.

Mr. Wm. Davidson shows views of an oak lectern for Dunfermline Abbey, richly carved, with wrought-iron balustrading. Mr. James A. Morris, of Ayr, shows a frame of craftsman's work, consisting of memorial plates with well-spaced lettering.

With regard to commercial buildings, the drawing of the North British and Mercantile Insurance Company's new offices in Glasgow, by Sir John James Burnet, R.A., is bold and distinctive. The straightforward treatment of the elevations is arresting.

Mr. James Miller exhibits a perspective drawing of the Commercial Bank of Scotland's new premises in Glasgow, excellent in its proportion and simplicity of treatment.

Of other drawings exhibited of a similar type, mention must be made of Mr. Walker Todd's British Linen Bank, Edinburgh, and Messrs. Keppie and Henderson's Bank of Scotland, Glasgow, Dr. Marshall Mackenzie's Britannic Assurance Office, Aberdeen, and the extension to the Royal Exchange, Glasgow, by Mr. A. N. Paterson, these all show well-considered elevations.

Good examples of domestic work shown by drawings and photographs are sent by Messrs. Orphoot, Whiting and Bryce, Stewart and Paterson, Mr. Aikman Swan, and Mr. Leslie Thomson. New school buildings, well planned and with pleasantly grouped elevations, are contributed by Mr. Walker Todd and Messrs. Reid and Forbes.

Sculpture.

The Sculpture Gallery is interesting, and includes about thirty subjects carved or modelled by Belgian sculptors. Some of the work is beautifully executed and very decorative, but one could wish to see some examples of the more advanced modern school which, whether one is in sympathy with it or not, receives so much attention on the Continent.

The most important group exhibited is from M. Egide Rombaux, entitled "Les Filles de Satan." The spontaneous movement and rhythm of the three life-size figures is satisfying, as also his marble portrait bust of Mme. Daniel Serruys, which is attractive on account of its charming soft lines and delicate chiselling. The same sculptor contributes a marble bust of "Un Fils des Flandres," also beautifully cut, and showing delightful composition.

Four groups of figures by M. Victor Rousseau, entitled "Buste de Jeune Danseuse," "Les Soeurs," "Confidence," and "Les Saisons," are also of more than passing interest. M. Alberic Collin shows eight works with clever handling of animal forms in action and repose. His bronze eagle is an exquisite thing.

Three subjects by M. Jules Lagae are very pleasing, especially one of a mother and child, with excellent balance and sympathetic feeling. A bronze bull by the same sculptor exhibits broad treatment and able modelling. M. Marcel Wolfers has two pieces, viz., "Paerels," which is a virile portrait of a man showing capable handling, and "Holocauste," a very delicately modelled example of his work.

A figure representing "Belgium, 1914," is sent by M. Pierre Braecke; it is carved in granite and shows an intimate knowledge of the material. "L'Homme a l'outre," an exhibit by Baron George Minne, calls for attention owing to its modelling and unusual pose. M. Ernest Wynants contributes a torso of a woman, carved in wood, representing "Maturité," which is decorative and delicately modelled, and though rather realistic has fine feeling.

The works contributed by British sculptors number about fifty-eight. "Hypnos," by Dr. Pittendrigh MacGillivray, has been exhibited before: it is representative of his work and shows an interesting composition treated in a decorative manner.

A memorial collection of four works by the late David A. Francis, entitled "Echo," "Mask," "A Veteran," and "Eve," show much promise, and one can only deplore the death of this artist at such an early age.

One of the most interesting works submitted is Mr Alexander Carrick's "The Kiss," which aims at a massing of material. It is a charming group, with very sympathetic modelling, and a sentiment which is quite distinct from sentimentality. Mr. Alexander Proudfoot shows a characteristic portrait of the late Neil Munro.

Mr. Paulin's "Psyche," carved in wood, loses by not being more conventionally treated, especially regarding the torso and legs. His bas relief of a Madonna and Child, carved in marble to a small scale, is very charming, though one could wish the relief were not quite so great.

Mr. Wm. Lamb treats his figure work in a realistic manner, and contributes two male figures to large scale. Mr. Massey Rhind's heroic figure of Col. Edward Cornwallis, the founder of Halifax, Nova Scotia, shows capable handling, and is treated in an imposing manner.

Noticeable among the works submitted by other sculptors are a dignified bust of Sir Frederick Whyte, by Mr. Allan G. Wyon, and a group entitled "The Caress," by Miss Stuart Weir, which is well composed. Interesting works are also submitted by Mr. James H. Clark, Miss Phyllis M. Bone, and Mr. Thomas Whalen.

ILLUSTRATIONS

PLATES.

The Fitzwilliam Museum, Cambridge: New Courtauld Galleries.

Our illustrations of these new galleries may be studied with advantage in conjunction with Mr. Eric Maclagan's paper on "Museum Planning," read at Monday evening's meeting of the R.I.B.A., a report of which is given in this issue. The front to Trumpington-street and the north and west sides are faced with Portland stone and have Crittall metal windows. The elevation to the future quadrangle is in Stamfordham facing bricks, with Portland stone dressings. The roofs are mainly concrete, asphalt covered, with lights in Mellowes' patent glazing. The main staircase is in Travertine marble, with Bianco del Mare treads and risers and bronze handrailing. The walls in most galleries are covered with boarding and "Sundour" hanging. The octagonal gallery is in Gaboon mahogany plywood. The floor is oak parquet with teak inserts. "Truscon" concrete floors are used, mainly with oak flooring. Crittall panel heating is fitted in ceilings or walls, with fibrous plaster ceiling decorations. The window shutters are fireproof and mostly controlled electrically. Students' reserves on the ground-floor Long Gallery are in oak, with bronze metal showcases. Fireproof sliding doors are provided to isolate the galleries. The first-floor galleries are divided into bays by cupboards, which are used as stores and from which sunblinds to lights may be operated. The seats are in oak, constructed by Messrs. Heal & Son.

Following is a list of contractors associated with the work:—William Sindall, Cambridge, general contractor; Simplex Concrete Piles, Ltd., reinforced concrete piles; Bath and Portland Stone Firms, Ltd., Portland stone; Ames & Finnis, facing bricks; R. Crittall & Co., panel heating; Crittall Manufacturing Co., Ltd., metal windows; Fenning & Co., Ltd., marble work in staircase and door architraves; Roneo, Ltd., steel shutters and fireproof doors; John Bolding & Sons, Ltd., sanitary fittings; Birmingham Guild, Ltd., metal ceiling grilles and bronze staircase railing; Dorman, Long & Co., structural steelwork; Trussed Concrete Steel Co., reinforced concrete floors; Morris Singer Co., wrot-iron boundary railing; Sika-François, Ltd., waterproofing basement; Panichelli & Sons, fibrous plaster work from models by Joseph Armitage; Mellowes & Co., Ltd., patent roof glazing; Stevens & Adams, teak and oak flooring; James Ritchie & Sons, electric goods lift; Guynan & Son, blinds; Ewart & Son, Ltd., copper roof covering; J. L. Emms, cast-lead rain-water pipes and heads; J. W. Gray & Co., lightning conductor; Guest & Chrimes, Ltd., Rotherham, hydrants; Art Pavements and Decorations, Ltd., terrazzo paving; Val de Travers Asphalte Co., asphalt flats; Heal & Son, oak seats; William Sindall, oak fittings; Maple & Co., "Sundour" wall fabric; Sage & Co., bronze showcases; Martin Van Straaten, wall tiling.

Messrs. Whitaker, Hall & Owen were the consulting engineers, and Mr. G. W. Harris the clerk of works.

Messrs. Smith & Brewer are the architects.

"Rivermead Court," Hurlingham.

These new flats are adjacent to the Hurlingham Club and the Thames, and the buildings are so disposed on the site that the majority of flats have a view of the river. The two side blocks each contain 96 flats, and there are 16 larger flats in the centre block. The elevations have a rusticated blue brick base up to first-floor level, with Tucker's multi-coloured facing bricks above. The windows are double-hung sashes and the roof is covered with varied green and rustic random slates. The architraves to the main entrance doors, window dressings, balconies, etc., are in cast stone. The entrance halls

are finished in stucco. The flats are the property of the Prudential Assurance Co., Ltd. Other illustrations and plans were given in our issue for August 8, 1930.

Messrs. Higgs & Hill, Ltd., were the general contractors, and the following is a list of sub-contractors :—Caxton Floors, Ltd., fireproof floors and roofs; Carron Co., rainwater pipes, railings and gates; Emerson & Norris, cast stonework; Crittall Manufacturing Co., steel casements; John Bolding & Sons, sanitary fittings; Express Lift Co., lifts; Ragusa Asphalte Co., asphalt; J. H. Nicholson & Co., heating, hot and cold water; Rippers, joinery; Bratt, Colbran & Co., fireplaces; W. N. Froy & Sons, baths; Gas Light and Coke Co., gas; F. H. Wheeler, electric light; Carter & Co., tiling; Plastering, Ltd., plastering; Norris & Co., Ltd., staircases; Gaze & Sons, wrought-iron grilles and railings; Educational Supply Co., garage doors; Edison Swan Elect. Co., B.T.-H. refrigerators.

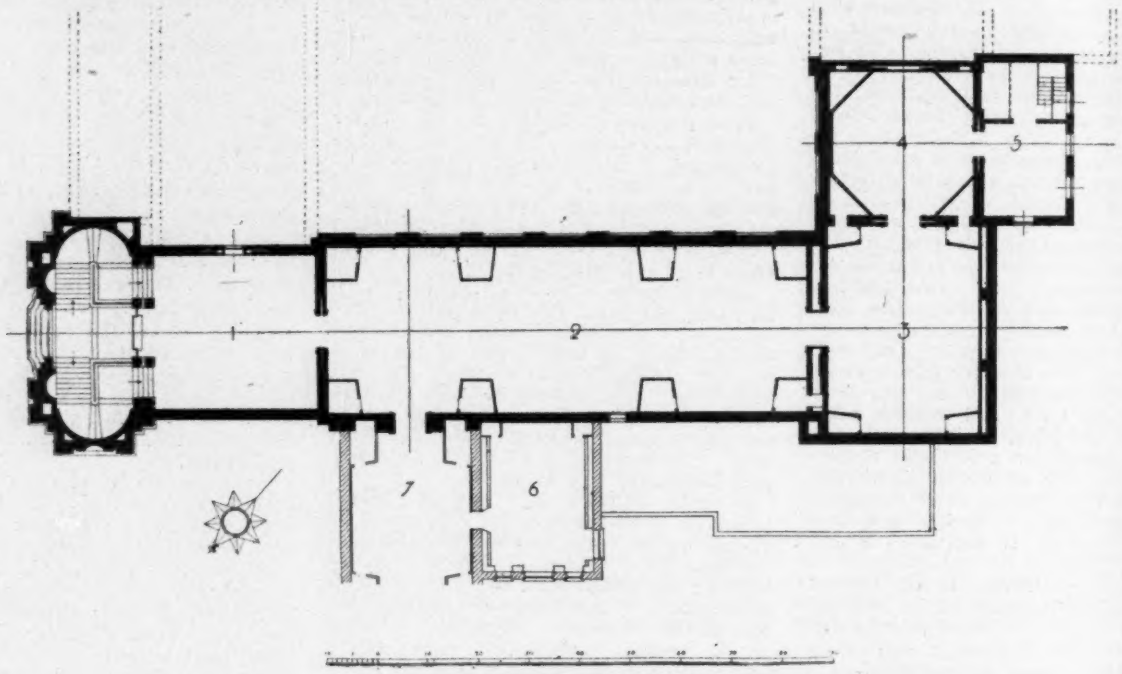
The architects are Messrs Joseph.

A Village Church, Foxhill, Selly Oak.

With the falling off in the numbers of churchgoers and the gradual breaking down of the sectarian barriers between denominations, Union churches, as they are sometimes called, are often needed to serve small communities where the numbers desiring regularly to attend the individual churches of the various sects are too small to justify the retention of separate buildings. Such churches, where Anglicans and Presbyterians may mix with Baptists and Unitarians, must have no characteristics which might offend the susceptibilities of any of the possible worshippers, and yet they must have a character of their own. The architect of this work has therefore gone for inspiration to the simple old meeting-houses of the early dissenters and the almost equally plain and unassuming ancient village churches. The building has the aspect of a meeting-place for community worship. The timbers are of oak and the walls of hand-made bricks, and the whole is to be constructed by local craftsmen with local materials. The seating accommodation is 200, and the cost approximately £9,000. Mr. Arnold Silcock, F.R.I.B.A., is the architect.

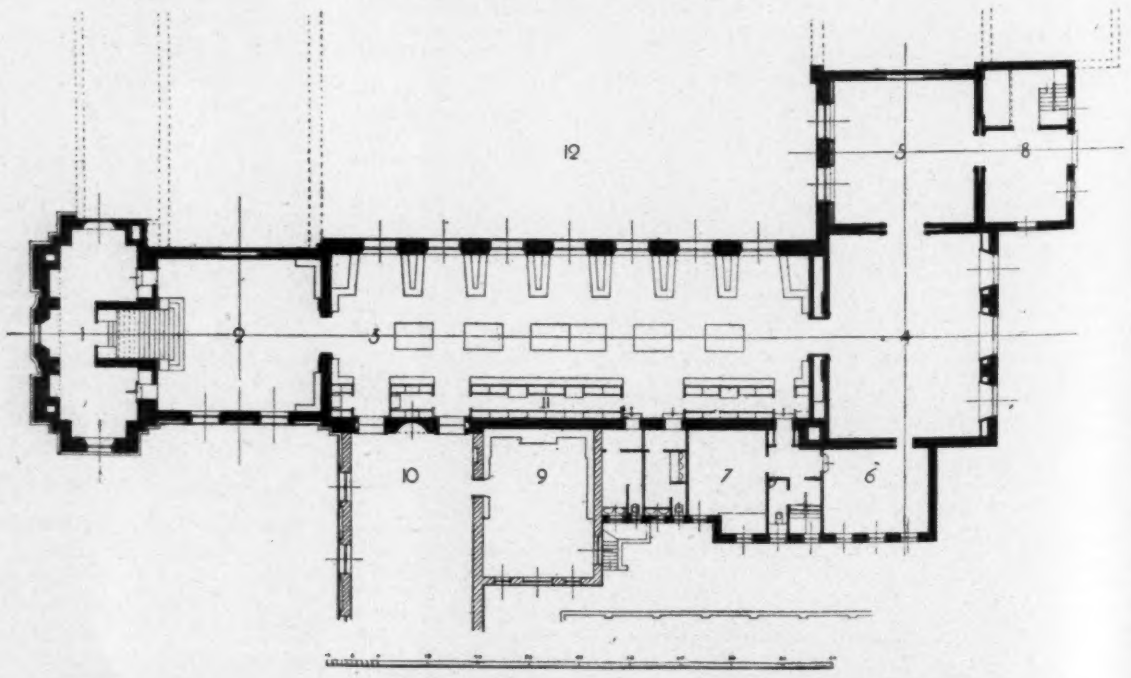
Exhibits at the Royal Scottish Academy.

A criticism of the Royal Scottish Academy Exhibition is given on page 1006.



FIRST-FLOOR PLAN.

1. Staircase Gallery. 2. Long Gallery. 3. West Gallery. 4. Octagonal Gallery. 5. Spare Gallery. 6. Manuscript Room. 7. The Marlay Wing.



GROUND-FLOOR PLAN.

1. Workroom. 2. Staircase Gallery. 3. Long Gallery. 4. West Gallery. 5. Square Gallery. 6. Reserve Gallery. 7. Curator. 8. Receiving Room. 9. Coin Room. 10. The Marlay Wing. 11. Reserves. 12. Court.

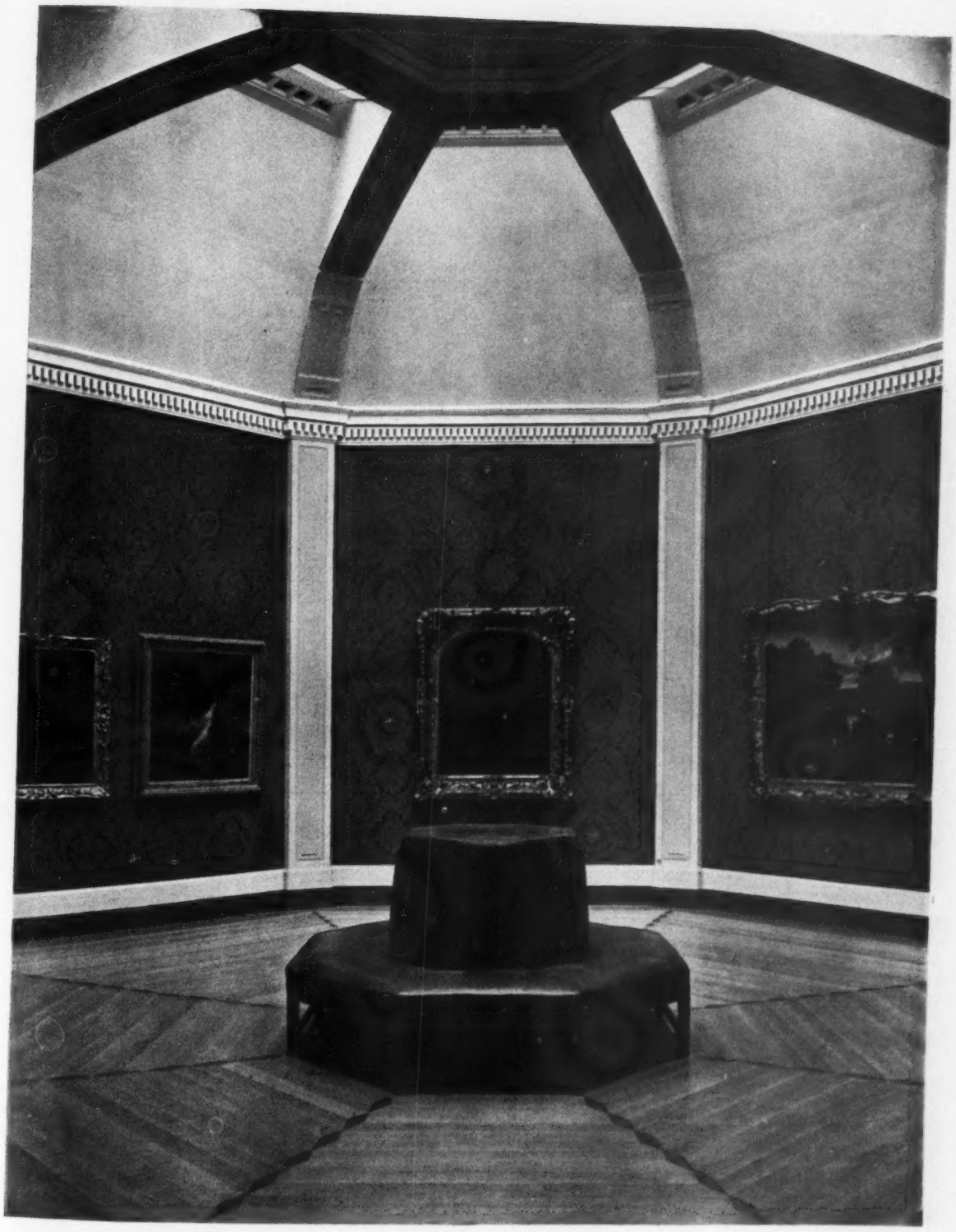
Fitzwilliam Museum, Cambridge: New Courtauld Galleries.

MESSRS. SMITH AND BREWER, Architects.

Fitzwilliam Museum, Cambridge. New Courtauld Galleries: View from bottom of Staircase.

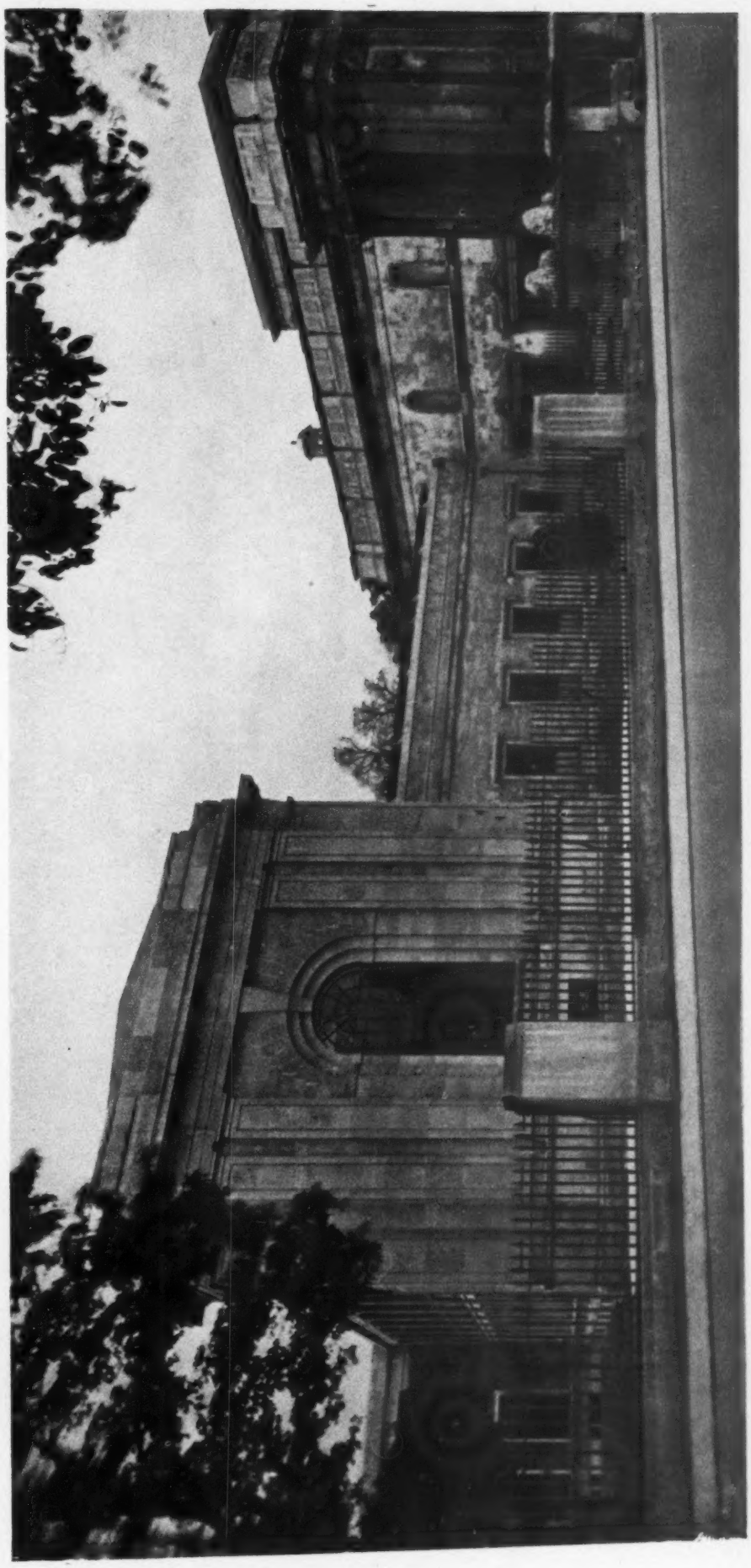
MESSRS. SMITH AND BREWER, Architects.

Fitzwilliam Museum, Cambridge. New Courtauld Galleries: Staircase Landing, First-floor.
Messrs. Smith and Brewer, Architects.

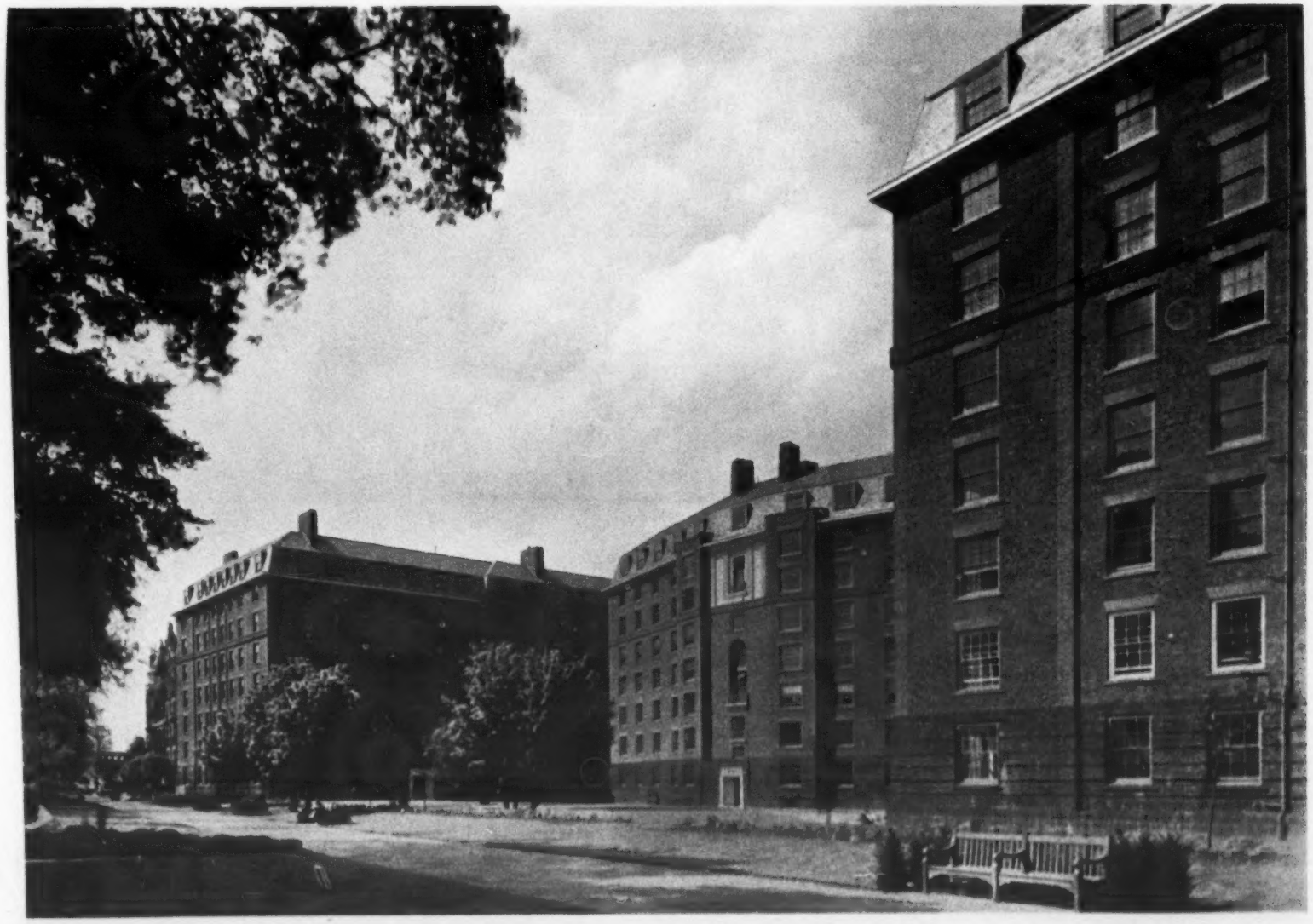


Fitzwilliam Museum, Cambridge. New Courtauld Galleries: The Octagon Gallery.

MESSRS. SMITH AND BREWER, Architects.

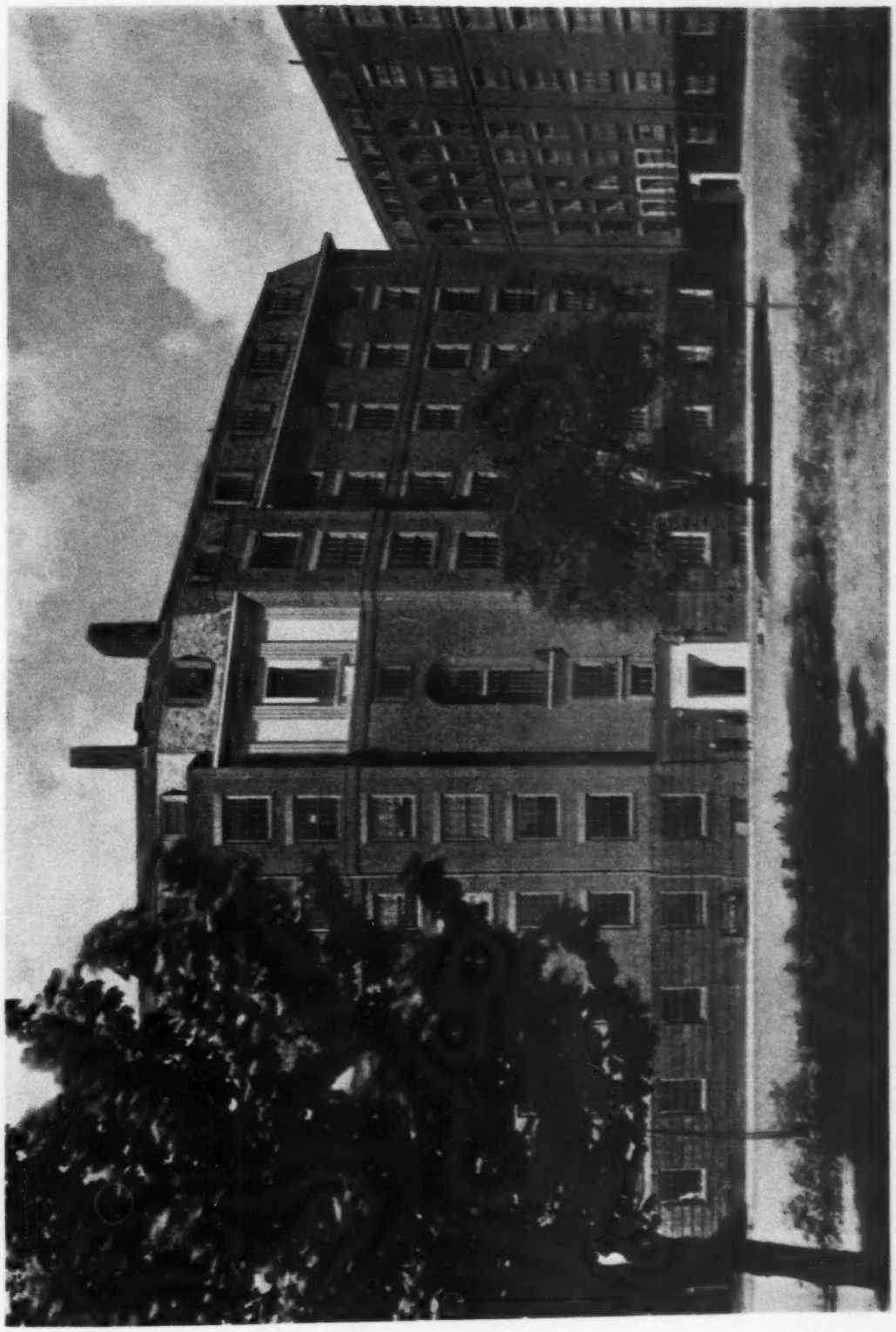


Fitzwilliam Museum, Cambridge: New Courtauld Galleries.
MESSRS. SMITH AND BREWER, Architects



"Rivermead Court," Ranelagh Gardens, Hurlingham, S.W.

MESSRS. JOSEPH, Architects.



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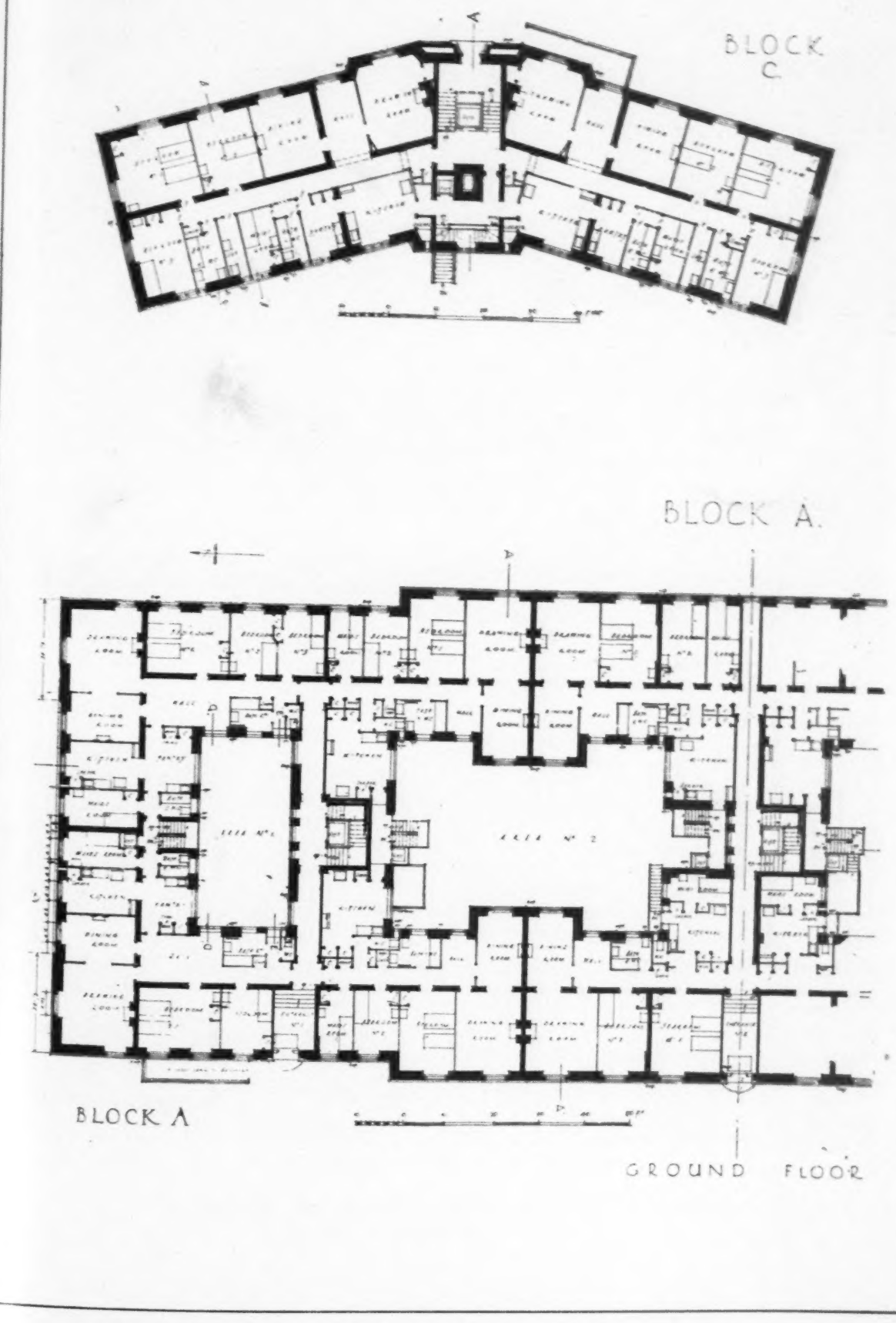
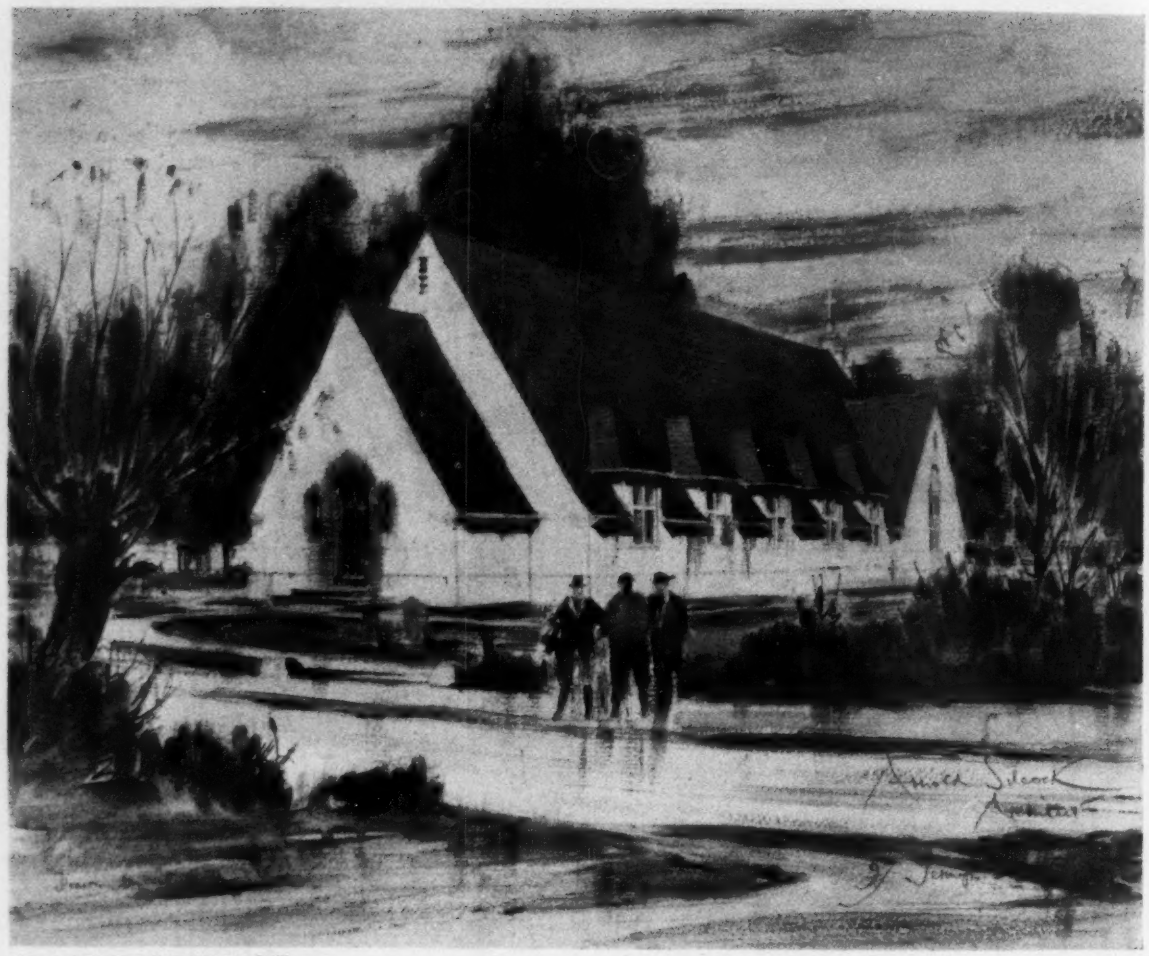
Messrs. Joseph, Architects.



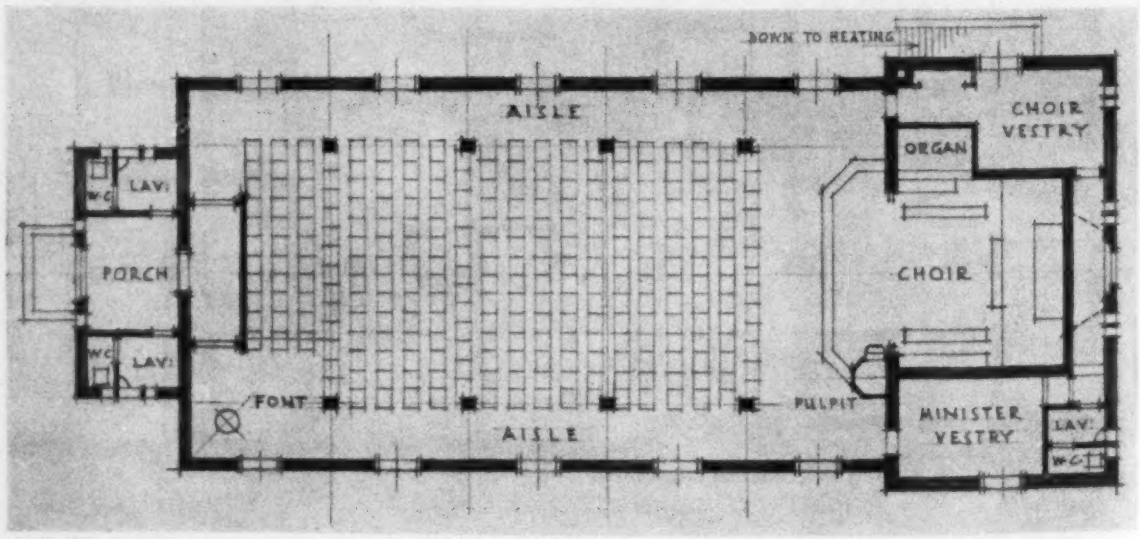
"Rivermead Court," Ranelagh Gardens, Hurlingham, S.W.: Ground-floor Plans.

MESSRS. JOSEPH, Architects.



ROYAL ACADEMY EXHIBITION, 1931.

PERSPECTIVE VIEW



PLAN.

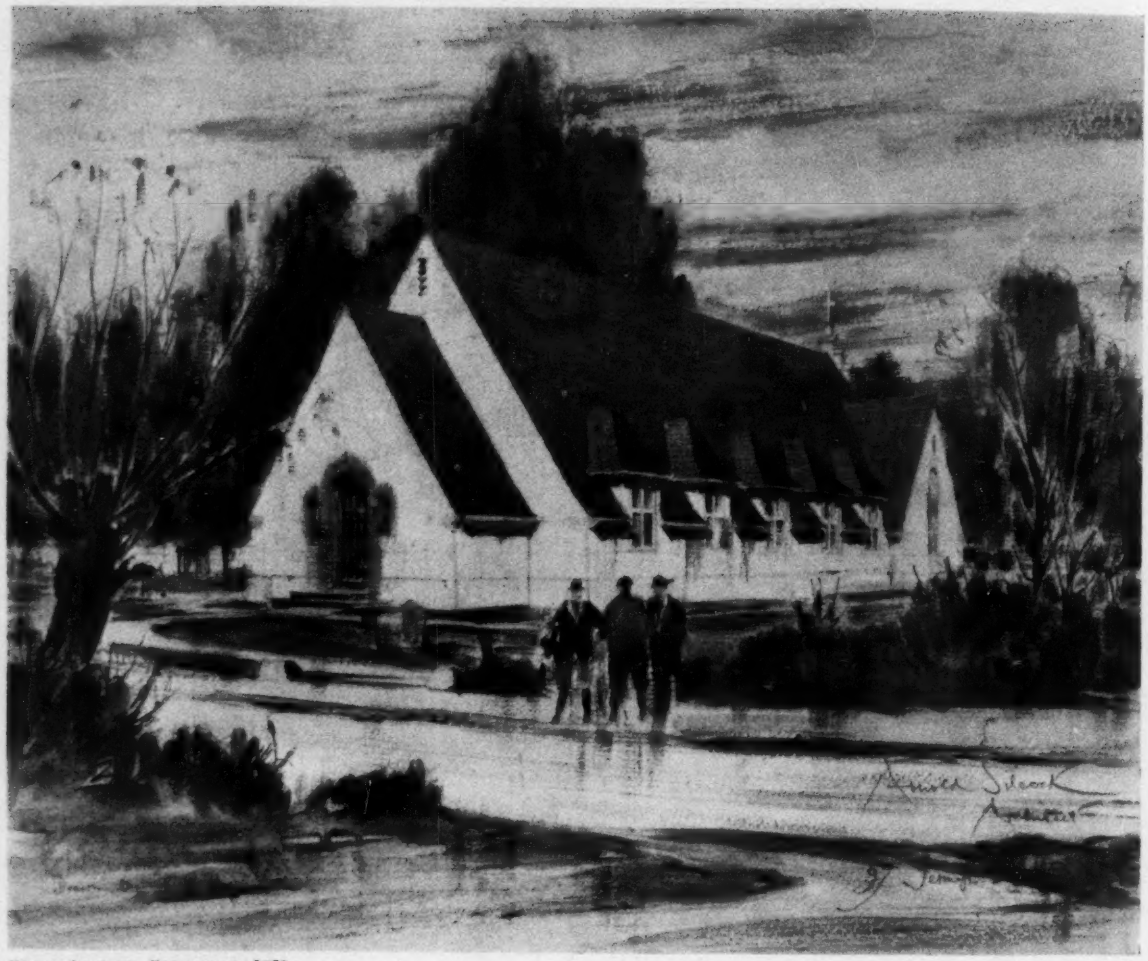
Proposed Village Church, Foxhill, Selly Oak, near Birmingham.

MR. ARNOLD SILCOCK, F.R.I.B.A., Architect.

ROYAL SCOTTISH ACADEMY EXHIBITION, 1931.

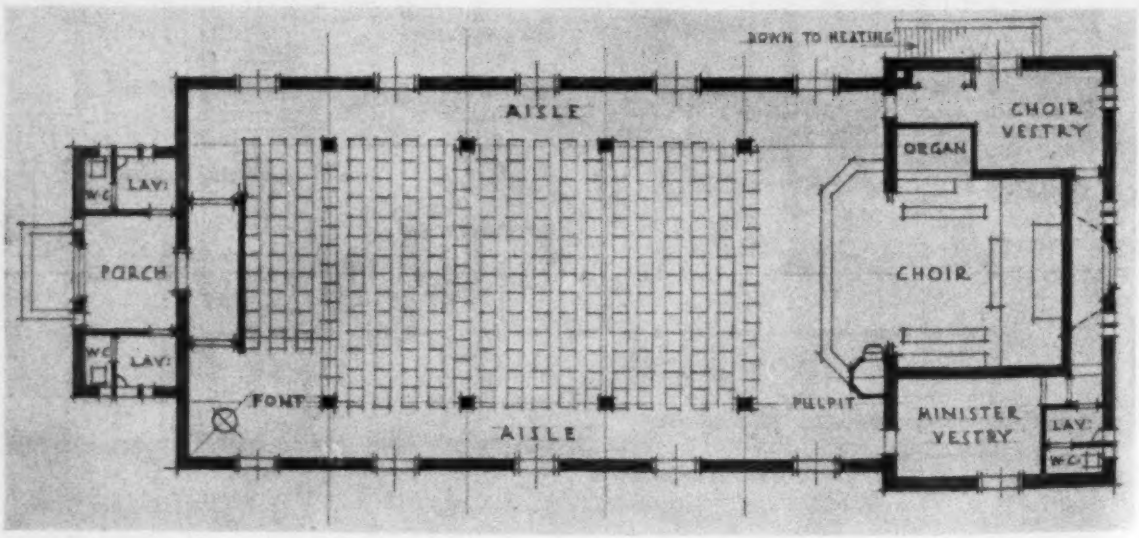
Church of Our Lady, Bangour Village, West Lothian : Choir and Sanctuary.

MR. H. O. TARBOLTON, A.R.S.A., F.R.I.B.A., Architect.



ROYAL ACADEMY EXHIBITION, 1931.

PERSPECTIVE VIEW



PLAN.

Proposed Village Church, Foxhill, Selly Oak, near Birmingham.

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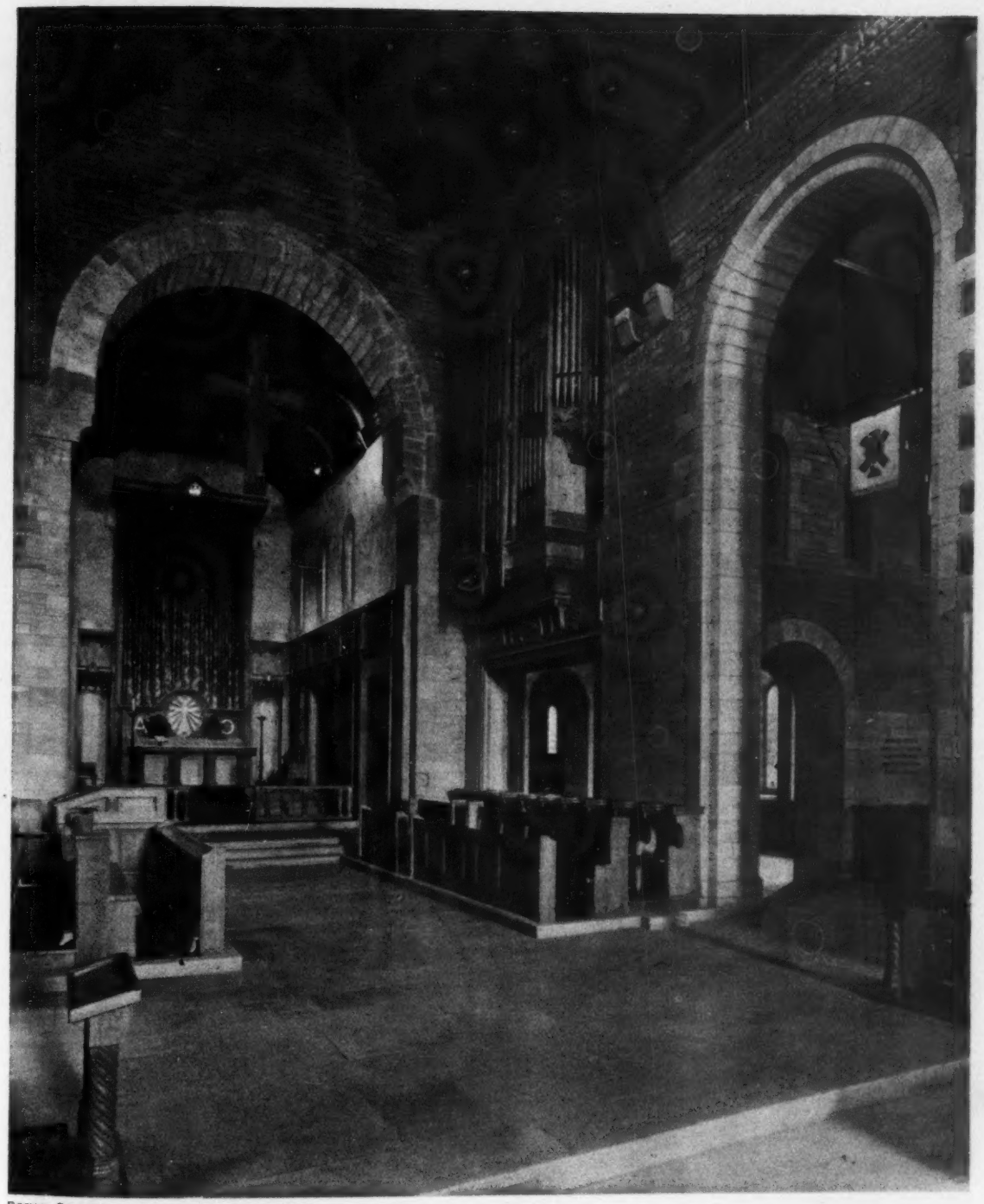

ROYAL SCOTTISH ACADEMY EXHIBITION, 1931.

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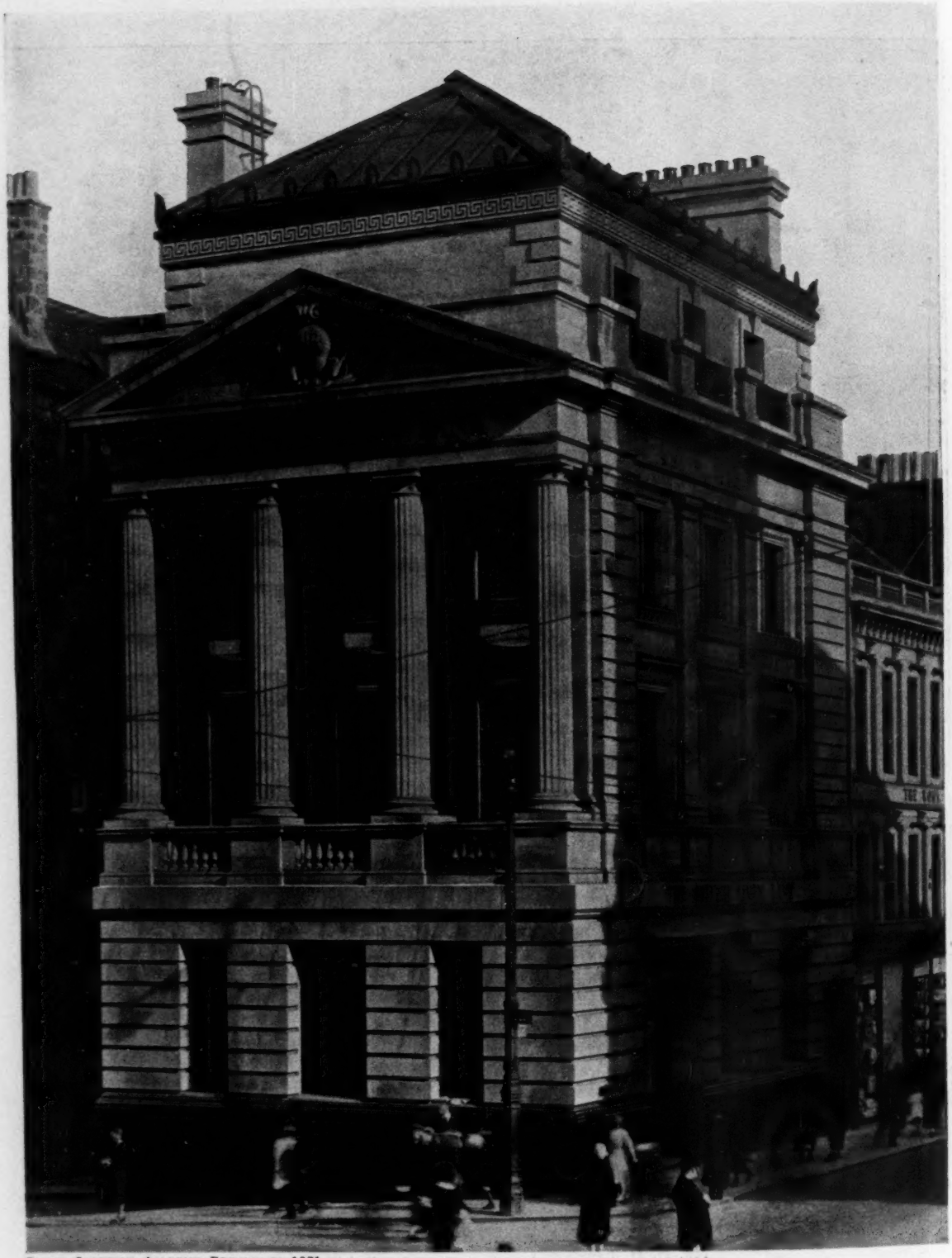


ROYAL SCOTTISH ACADEMY EXHIBITION, 1931.

The British Linen Bank, South Bridge Branch, Edinburgh.

MR. W. J. WALKER TODD, A.R.S.A., Architect.

ROYAL SCOTTISH ACADEMY EXHIBITION, 1931.

Merchiston Castle School.

MR. W. J. WALKER TODD, A.R.S.A., Architect.

THE PALACE OF MINOS AT KNOSSOS

By W. R. LETHABY.

The third volume of the great descriptive and interpretative work of Sir Arthur Evans, just issued, is as full and interesting as those that have gone before. This volume, published by Messrs. Macmillan, contains about 550 pages, 365 figures in the text, many coloured and other plates, and large supplemental plans in a pocket; the price is five guineas. It is an amazing record of patient study, lavish outlay and devoted labour, guided by special gifts of insight and intelligence. These books, we ought to recognise, are a contribution to English culture and England's reputation. A few months ago I saw a review of one of Sir Arthur's intermediate studies which offended me, and I hope others, by a tone of cold opposition which seemed to me entirely misconceived. It was, however, unsigned and irresponsible.

Some readers of older histories of architecture are still likely to think of Minoan art as primitive and brutal. On the contrary, this European art of the sixteenth and fifteenth centuries B.C. was in some respects the most refined ever practised in the world. The inlaid and embossed metal work is especially amazing. In the understanding and representation of animals, especially oxen, hardly anything can be put forward to compete with the best of these products. The decorative foliage painted on the walls has a grace, as if swaying in a breeze, and a springing sense of growth, which remind me of the work of William Morris. "The Miniature Frescoes—here illustrated by a series of coloured plates—with their vivid conversational sketches of Court ladies, are unique in Ancient Art."

Some evidence for the existence of a great cult-image constructed of wood and metal—like the Athena of the Parthenon—was discovered, and a beautiful little ivory figure, which Sir Arthur suggests was grouped with the famous goddess now in Boston, also was found.

The details given in regard to the building art are of parallel importance, but I may not stay to speak of these constructive matters. The palace was a vast complex building of many stories with columnar halls, great corridors and grand staircases. It had baths, toilet rooms and a water supply, pipes, a fountain jet, a well which was lined with terra-cotta tubes, and a remarkable "descending runnel with fall of water controlled by parabolic curves—extraordinary evidence of hydraulic knowledge."

The wall and ceiling decorations, usually paintings or painted reliefs, were very remarkable. Of some delightful olive trees we are told that the small branches were slightly bossed. In another case the surface was in the form of a succession of low oval bosses or large "blisters," more or less regularly disposed all over the surface, and on this undulating field the delicate leafage was painted.

Methods of mechanical repetition seem to have been used occasionally. On a dark ground identical forms of irregular outline were spotted about. This pattern was made by "the repeated use of a small sponge dipped in ochreous paint." Another example of "mechanical wall decoration" had an arrangement of clumps of crocuses: "however, the separate sprays, though almost identical with one another, seem to have been subsequently touched up by the painter's brush." Straight guiding lines on the plaster surface show the imprint of twisted threads. I suppose that a cord was stretched tightly across the wet plaster and then pressed into it.

One of the great paintings represented a ritual dance in a sacred grove by the palace. This dance pursued "a sinuous meander," "a mazy course," in an enclosed space. Nothing like a "labyrinth" is here represented, and it appears that this word means the sanctuary of the Double Axe. Another painting, however, is described as "the labyrinth fresco." It is suggested that the maze device found later on the coins of Crete was taken over from Egypt. Even so was it thus adopted as agreeing with traditional descriptions of Ariadne's dancing place? When the early mazes cut in turf in Northern Europe are considered, it seems probable that they were prepared for ritual dances and that some maze-like area was laid out at Knossos. The essential idea of a maze-labyrinth is an arrangement of passages and chambers so complex that the way out cannot be found without external help. How and when did this idea arise? Was the maze device associated with Knossos because of the complexity of the palace or because of "the mazy course" of the ritual dance?

The origins and subject-matter of what we call "ornament" have long interested me. "The symbolic side of Minoan religion was well marked. The Double Axe appears as an indication of the chief divinity, the sacred eye and ear imply an all-seeing and all-hearing presence. Settled doves are emblematic of spiritual possession. The sepulchral cell of the Tomb of the Double Axes, actually cut out in the shape of the sacred weapon, supplies an example of religious symbolism which may be strictly compared with the cruciform shape of many Christian churches (p. 152). . . . The furniture, including the ritual Double Axes of the Divinity between the Sacral Horns, was placed on a ledge at the head of the sepulchral cell" (p. 153). Gold butterflies have been found associated with the dead, while a golden balance, of the same light character, showing butterflies embossed on their scales, points to the idea of weighing souls. "That in Minoan as in later times the butterfly (*psyche*) was regarded as the life of man is clear" (p. 154). Shields were also symbolical and a knot of drapery was "sacral." "Certain subjects like griffins or sphinxes doubtless brought with them a protective value" (p. 144). Blocks of stone or plaster cut away in the middle and leaving standing ends were very largely used and these, too, seem to have been "protective": they are described as "horns of consecration" or "sacral horns."

The chief cult symbol at Knossos was a double axe raised on a shaft or pillar which was sometimes dressed up with real foliage to resemble a tree. This was erected on a pedestal of "the stepped pyramidal kind" and set between the "horns of consecration" or "sacral horns." These last sometimes approximated to the form U and at others were lower. One pair, illustrated in the present volume, is more of this shape ⊔, and nearly 4½ ft. long. Such pairs of "horns" were frequently placed along the edges of level roofs forming a parapet. The sacred axe on its base made a form something like T above ∩. The explanation of the axe appears to be that it was the symbol of the sky god, later Zeus.

The question of the full meaning of the Double-Axe symbol seems to be mixed up with sacred pillars, world-trees (p. 147), and mother goddesses. I have been impressed by what appears to me the similarity of the symbol to representations in the Egyptian Book of the Dead of the rising sun. In some of these we have an *ankh* of a double-axe-like form erect between mountains which rise like horns at the sides. In Minoan and Oriental art the sacred pillar, tree, or mother goddess is frequently guarded by lions or other beasts. Sir Arthur says: "The lion of the goddess kept watch over the realms below, just as in Egyptian belief the underworld region through which the sun passed was guarded at either gate by the lions 'Yesterday' and 'To-day'" (p. 154). While writing this I find in the October number of the American *Geographical Magazine* an illustration of a carved ivory, *c.* 1300 B.C., recently discovered in Syria. It represents a "Goddess of Fertility" who holds up ears of corn while goats romp up against her as the lions do against the pillar over the gate at Mycenæ; moreover, the goddess is seated on an altar exactly like those which form a base to the same pillar. The text tells us that the relief represents "the Cretan-Mycenæan goddess of fertility." It may hardly be doubted from the resemblance mentioned above that the Egyptian picture in the Book of the Dead and the Cretan double-axe symbol both represented similar cosmic ideas. The sculpture on the gate of Mycenæ is another variation. Is it possible that "horns of consecration" were pillars of the world "which cannot be moved," symbols of stability?

On pages 511 and 513 a fragment from a relief and a restoration of a column appearing on it are given. It is called a "Minoan palm column," and it is remarked: "This type of capital, as restored in Fig. 358, itself represents a version of that of the Egyptian palm column, of especially frequent occurrence during the Middle Empire, and the leaves of which with their central stem are derived from those of the date palm." The capitals of the Atreus columns in the Museum have similar leaves with central stems filling a hollow directly above the shaft. These columns stood idle, or nearly so, merely bearing impost blocks; compare the single decorative column of the Gate of Lions. The columns are much ornamented, and some years ago I came to the view that they embodied some thinking beyond "architectural style," and that they represented palm-trees (sacred, of course!). The stems, decorated with zigzags, may be compared with the remarkable wooden columns lately brought from Ur. The upward enlargement of the shafts and the somewhat drooping form of the capitals seem also to be imitated from palm trees. I may point out that the bases of these columns are in the form of low "stepped-pyramids," like the bases of the sacred double-axes. These "stepped-pyramids" were like Sumerian Ziggurats, and almost certainly symbols of stability and representations of the central world mountain. "In this earthquake-stricken region it is hardly necessary to recall the special need of divine protection." That columns were of kinship with the double-axe symbol is shown by their appearing in paintings as standing between horns of consecration, and as having "the blades of inserted double-axes" in their capitals.

In the volume before us it is suggested that the enlargement of columns upwards may have originated by inverting [newly cut] tree stems so that they should not sprout. Evidence has been found of the existence of both reeded and fluted columns (p. 321), and it is pointed out that the former was probably the earlier, having been derived from posts made up of bundles of reeds. In regard to capitals, I would suggest that the block form illustrated on p. 63 may represent the end of a beam rather than an isolated capital; compare the block over the column of the Gate of the Lions.

It is certain, as every student would agree, that several "architectural" forms originated in the imitation of Nature, an imitation that was ritual and magical rather than pictorial. but how far such interpretations may be carried is as yet undecided. Generally, it may be allowed that the earliest columns were bundles of reeds and tree-trunks. Again, there is a direct and obvious relation between ceiling and sky, as indeed the word still shows. It may hardly be doubted that the much-ornamented ceilings illustrated in this volume, which are painted brilliant blue, studded with yellow rosettes (or stars?) linked by spirals, are akin to Egyptian sky-ceilings. It seems obvious, too, that the vault of the Tomb of Atreus, set over with bronze rosettes, must have been intended to resemble "the star-freckled sky."

One of the regular patterns of Minoan art

—an elaborate form of scale pattern—is shown in the volume before us to have represented waves, or rather ripples on shallow water (p. 86). Again, a bath tub is described, on the interior of which are "traces of designs of tufts of reeds," and it is added that this was an old tradition. Nothing, I think, is said of the "bisected-rosette pattern," but it may be pointed out that the frieze on p. 207 seems to show that it was allied to the double-axe motive. Here it may be asked if the curious throne illustrated on p. 337 had any meaning, or whether it was only what we call "a design"? The back is of an undulating cloud-like form; can it be a cloud indeed? Such a background would be appropriate for a monarch like an Egyptian king, Son of the Sun. On either side of the throne was a column, and the king must have appeared as if "in the gate." It is curious that there seem to be only very few representations of the sun in Minoan art. Was the king the sun? I wish I could find out what a "rosette" was; is it supposed that it was a flower, or a star, or just "ornament"? The identical practice of setting rosettes on door-frames in Minoan and Hellenic art suggests that they were regarded as being protective. The appearance of an eye (sacred!) on a relief has been mentioned above. The recent excavations at Ur have made us acquainted with the large use of eyes as units of "protective" ornament, and I have wondered whether the quilloche pattern may not in origin have been a row of eyes If that were so, there might be an eye element in the Minoan spiral, and in the rosette, too.

I have ventured to speak unguardedly—as an inquirer rather than a critic—about questions, from labyrinths to eyes, which specially interest me, in the hope that I may find further enlightenment. I now turn to a more technical point. A section of the volume is devoted to the two fragments of reliefs of oxen in the Elgin Collection at the British Museum. These have attracted me for many years, and I have made this the occasion to re-examine them. The cutting for a metal cramp in the top edge of one is, I believe, modern; it is in the middle of the fragment and is similar to those in other pieces cut for fixing to the walls of the Museum. Many years ago I pointed out in *The Builder* that another indent on this slab was made for a dovetail fixing-block, and that this showed that the reliefs formed a dado. I now find a remnant of a similar indent on the second slab. This is largely broken away, for a fracture starts from the weakened point, and the evidence has been further obscured by a cutting made for another modern cramp, but that the end of a fixing-block came here may not be doubted. The right-hand end of the slab would have been only 6 or 8 in. from this point, there being two dovetail fixing-blocks to each slab. Further, on the background, just above the head of the bull, there is a slight trace of what was probably a horn rising upward, and not thrown forward, as in the restored sketch. The Cretan bull, with which Sir Arthur compares our fragment, has the more upright horns, and such a position requires a much shorter slab. The front part of the head is broken away, and what remains seems to have been misinterpreted. In drawn restorations the head seems too much crushed back against the animal's neck: the lower jaw has been taken for the nose and a fold of the skin of the neck is called the tongue. Sir Arthur tells us that the two fragments were "found in front of the Atreus façade," and he argues that they would have been parts of dado slabs on the two walls leading up to the great doorway of the tomb. There is really not enough evidence to show where the fragments were found, much less to prove what position they occupied. A plan in the Elgin collection shows that a wide excavation was made from the doorway, through the centre of the structure to the inner chamber. It is more probable, I think, that these slabs were originally in this chamber than on external walls. Sir Arthur agrees that the evidence is against their having been fixed to the existing external walls, but suggests that these have been rebuilt. "It must be regarded as proven that the dromos walls in their existing form do not represent the original construction."

It is difficult to prove much about walls which are thought to have been destroyed, but there seems to be enough evidence to prevent me from believing that the oxen slabs occupied the position suggested. These slabs must have been placed where the upper part of the wall was also cased, or beneath an oversailing course which protected the ends of the dovetails and also prevented rain-water from running down behind them.

The slabs are also more likely to have been fixed above a level floor than in an *inclined* passage-way. The rebated end of one of the fragments suggests that it came next to a right-angled return such as there would have been in a chamber but not in the dromos. If the walls were indeed rebuilt, were the slabs still left in the dromos, thus giving evidence of their original position? It is not even certain that the slabs came from the tomb, much less from its entrance-passage. These are small, tedious details, but we want to arrive at as correct a description as may be obtained. The reliefs were painted, and some olive leaves appear to have been inlaid in a very thin brilliant material on the general form of the tree.

The excavations at Knossos and study of the evidence during so many years must have been a marvellous experience. No one, not even King Minos himself, can have known so fully all about the palace as Sir Arthur Evans does, and no one ever will again. He has indeed lived into it.

BOOK REVIEWS

Herefordshire. Vol. I. South-West. Royal Commission on Historical Monuments, England. (London: Published by H.M. Stationery Office.) Pp. 294 and xliv; 201 full-page plates, many line block plans and reference map. 4to, cloth, £1 10s. net.

It is just over four years since the Royal Commission produced the eighth volume (Huntingdonshire) of the provincial series of surveys. It was reviewed in *The Builder*. Other inventories dealing with the London area have appeared in the interim. It may be useful to recapitulate the aims of the survey: "To make an inventory of the Ancient and Historical Monuments and Constructions connected with or illustrative of the contemporary culture, civilisation and conditions of life of the people in England, excluding Monmouthshire, from the earliest times to the year 1714, and to specify those most worthy of preservation." The date limit was originally, in the terms of reference, fixed at 1700.

The present volume covers the south-western division of the county of Herefordshire, an area comprising 851 monuments in 72 parishes with an average of 12 monuments per parish. If we look at the map in the end pocket of the book we see that there is scarcely a square mile unmarked with a red number or sign locating a monument. A monument may consist of anything from Hereford Cathedral or an important parish church with their contents, a manor house, a river bridge, or a tithe-barn, and, in fact, anything, down to the humblest wayside cottage, with architectural features: a ruined border-castle, a neolithic camp, or prehistoric tumulus. Anything which has exerted a cultural influence throughout the ages is carefully scheduled, described, and, where possible, illustrated in whole or in detail. Most vital of all is the ear-marking of everything which in the opinion of the Commissioners is worthy of preservation.

The volume is not, in the generally accepted sense of the term, a county history, but is in fact a national stocktaking which brings right home to us all our duties to posterity in the conservation of our national heritage. We are given 201 full-page plates together with a number of line blocks to scale in the text. Hereford Cathedral, quite naturally, takes pride of place in the survey, occupying 130 pages of text with 35 whole-page plates. The city churches, the Wye Bridge and other local monuments are quite adequately dealt with. In these days of easy transit such things of obvious importance are quite familiar sights, but the volume reveals that the still unspoilt countryside is full of archæological treasures. Two parish churches, Kilpeck and Peterstow, are certainly of pre-Conquest foundation. Granted that of the original church of St. Mary and St. David at Kilpeck only the north-east angle of the nave remains, the present church, consisting of nave, chancel and rounded apse, was rebuilt in the third quarter of the twelfth century. It stands to-day, with some modern restorations, as a complete twelfth-century church, and two of the plates (169 and 170) reveal some of the most interesting Romanesque work in the whole country. The figure subjects on the chancel arch and south doorway with other grotesqueries in the carved details are quite distinctly Scandinavian in character. This little church, eight miles south-west of Hereford City, is worth going many miles to see. This is but to mention one of more than seventy churches of varying degrees of importance and interest as exemplifying English architecture from the eleventh century right through the Gothic developments.

Hereford Cathedral is noted for its series of fine fourteenth-century misericords with their bewildering array of carved grotesqueries; perhaps more fascinating still is the shorter series at All Saints', Hereford, wherein we shall find particularly tender renderings of animal life. All these are illustrated in the survey volume, together with a wealth of other mediæval carved woodwork.

It is scarcely necessary to remind readers that the Royal Commission volumes rank amongst the most valuable of the age, and that only as subsidised literature could the volumes be sold at their modest net prices—30s. in this case. We are promised the completion of the Herefordshire survey in two more volumes.

The House Improved. By RANDAL PHILLIPS, Hon. A.R.I.B.A. London: "Country Life." Price 7s. 6d. net.

The architects of some of the houses illustrated in this little volume have converted by skill and ingenuity characterless houses into presentable and livable ones. These characterless houses are endless, so that this little volume should be of use to those possessing them and desiring some improvement. Another interesting problem dealt with is a London house with a basement transformed by levelling the front and laying it out as a courtyard, so making the basement a ground floor. This was a problem tackled by Mr. Morley Horder for the late Sir Lawrence Weaver, and its solution appears to be highly successful. Chapters deal with every-day problems such as "Hot-water Supply," "The Garage," "Smoky Fireplaces and their Cure," "A Cottage Restoration," and that ever-present problem, "Damp Walls, Causes and Cures."

Builders' Materials. By R. F. B. GRUNDY, B.Sc., A.M.I.C.E. London: Longmans Green & Co. Price 5s. net.

This is a work which may be recommended with confidence to the student preparing for examination, and for it he may well find room on his shelves after he is "through." The author has profited by his experience as a lecturer in so far as it enables him to compress into one comparatively small volume as much information as others less practised would find difficulty in confining to twice as much space. The lucidity and simple directness with which he conveys his information make reading him a pleasure, and those long past their student days may read him with interest and profit.

SOCIETIES AND INSTITUTIONS

INSTITUTE OF LANDSCAPE ARCHITECTS.

A PAPER ON "Austrian Baroque Gardens" was given at the Royal Horticultural Society's Hall on June 2, by Mr. G. A. Jellicoe, A.R.I.B.A., A.I.L.A. Sir Reginald Blomfield was in the chair.

The geographical position of Austria had been both her strength and weakness, said the speaker. On the one hand she formed the Christian bulwark against the Turk, a fact that prevented her development until 1683; and, on the other, this same fact tended to raise her as their natural protector above the other German States. The history of Austria was that of the Hapsburg dynasty, and the effective art history lasted for little more than the first half of the eighteenth century (when Austrian prestige had superseded that of France). The two art influences were Italy and France—Italy because she was the centre of culture and in close proximity, and France because of the political eminence of Louis XIV during the seventeenth century. A comparison of two gardens, the Villa Marlia in Tuscany and Chantilly in France, indicated the more personal character of the former in contrast to the monumental entertaining character of the latter. The small ecclesiastical principality of Salzburg gave rise to the first baroque garden north of the Alps. Schloss Hellbrunn was built by the Italian Solari in 1613. The plan, said the lecturer, had much charm and was Tuscan in feeling, but the general layout was weak.

Vienna developed after the raising of the siege in 1683, and a summer palace outside the ramparts beyond the green open belt (now the Ring) became fashionable. At first Italians were called in: Domenico Martinelli built the Leichenstein palaces, with perhaps the best detail in Vienna. Very soon two Austrians, Fischer von Erlach and Lukas von Hildebrandt, came almost to monopolise work. Activity west of the city gave rise to a series of gardens on the rising ground with superb views, that were to-day nearly complete. These were the Schwarzenbourg Palace, the Belvedere Palaces (for Prince Eugene of Savoy, the national hero), the Silesian Nunnery and the Botanical Gardens, The first of these, by Fischer von Erlach, was delightfully planned in rising terraces, but did not equal its neighbour, the Belvedere. The two palaces were built by Hildebrandt, and the garden between laid out by Francois Girard, a pupil of Le Notre. This scheme represented the peak of Austrian garden design, and held its own with any in Europe. With its sense of form, its relation to the Vienna basin, and spectacular effects, it epitomised baroque art.

Among gardens outside Vienna, Schonborn (Gollersdorf), Schlosshof (Marchegg), and the Mirabelle gardens at Salzburg, had remains of fine gardens. The greatest of all was the imperial Schonbrunn, begun in 1696 by Fischer (whose first design was abandoned through expense), and dated in its present form from the time of Maria Theresa. Schonbrunn was cruder than Versailles, which it sought to emulate, but had an air of intimacy that Versailles lacked It was significant that Marie Antoinette, Marie Theresa's daughter, who spent her childhood at Versailles, should feel the need of the Petit Trianon and Dairy Farm. It was magnificently spectacular, and represented the last great effort of the Baroque.

Architecturally, with the exception of the Belvedere, there was no Austrian garden that could equal the masterpieces from Italy or France. The detail was essentially vigorous, however, especially the sculpture and ironwork. Flowers played little part, for the same reason as in France, that the monumental scale did not call for the intimacy with which they are usually associated. The Austrian garden was essentially for a town. Even on open country sites there was rarely if ever the same sympathy to surroundings that was found in the Italian garden, nor was there the forceful extension into Nature adopted by Le Notre. The development of clipped hedges, possibly the grandest in Europe, was but an expression of the rigid formality of court life. For this the gardens were a perfect setting.

A vote of thanks to the lecturer was, on the proposal of H.E. the Austrian Ambassador, carried unanimously.

R.I.B.A.

The nominations for the four vacancies as vice-presidents of the R.I.B.A are :— Mr. L. S. Sullivan, F.R.I.B.A., Mr. Sydney Tatchell, F.R.I.B.A. (London); Professor C. H. Reilly, O.B.E, F.R.I.B.A (Liverpool); and Mr. Ernest C. Bewlay, F.R.I.B.A. (Birmingham).

At the meeting of the Royal Institute on Monday, the Hon. Secretary announced the deaths of :—

Dr. Thomas Ashby, elected an Hon. Associate 1922.

George Charles Inskip, elected a Fellow 1886, transferred to Retired Fellowship 1917. Mr. Inskip was R.I.B.A. Hon. Secretary for Australia from 1900 to 1920, and was also a past president of the Royal Victorian Institute of Architects.

Charles William English, elected Licentiate 1910, Fellow 1921.

Alexander Gordon, president of the Institute of Architects of Malaya, elected Associate 1921, Fellow 1928.

Owen Carey Little, elected Licentiate 1911, and Fellow 1912.

William Henry Stucké, elected Associate 1889, Fellow 1910.

Robert Bentley, elected Licentiate 1911.

Arthur Montgomerie Howard-Jones, transferred to Licentiateship 1925.

Frederick John Matthews, transferred to Licentiateship 1925.

Archibald Anderson Symon, elected Licentiate 1910.

Thomas E. Taylor, elected Licentiate 1911.

Frederick William Taylor, elected Licentiate 1911.

The regrets of the Institute for their loss were entered on the Minutes, and messages of sympathy and condolence have been conveyed to their relatives.

At a business meeting held after the close of public proceedings on Monday night, the following resolution was agreed to:— "That the Declaration to be signed by a Licentiate be amended as follows :—After the word "am," third line, delete the words "not engaged in any other avocation than that of an Architect or Architect and Surveyor," and insert the words "engaged in the study (or practice) of Architecture, and have attained the age of thirty years"; further, "That the necessary steps be taken to obtain the sanction of the Privy Council to such amendment as is required to give effect to this resolution."

INCORPORATED SCOTTISH ARCHITECTS.

At the monthly meeting of the Council of the Royal Incorporation of Architects in Scotland held at 15, Rutland-square, Edinburgh—Mr. John Watson, A.R.S.A., president, in the chair—Mr. J. A. Arnott, F.R.I.B.A., Edinburgh, was elected as representative of the Incorporation to the R.I.B.A. Board of Architectural Education for year 1931-32. There were 58 competitors for the various Incorporation prizes for session 1930-31, the winners being as follow: Mr. Basil Spence, Edinburgh College of Art, who gained first place in the Rowand Anderson competition—silver medal and £100; and Mr. John D. Carnegie, Edinburgh College of Art, who gained second place—£20; Mr. T. Arnold Jeffreys, Edinburgh College of Art—Rutland Prize £50; Mr. A. W. Varcoe, Edinburgh College of Art—Incorporation Prize, £15; and Mr. J. N. Summerson, B.A., London, late of the Edinburgh College of Art—essay prize, £20. The following were elected members of the Incorporation:—Mr. W. J. Taylor, Inverness—as Fellow; Mr. J. F. Coull, Leith; Mr. A. M. Neilson, Joppa; and Mr. J. S. Ross, Inverness—as Associates; and Miss E. M. Sherwell, Edinburgh—as student.

EDINBURGH ARCHITECTURAL ASSOCIATION.

In the last of the monthly visits arranged by the Edinburgh Architectural Association, a large number of members visited the Edinburgh University Departments of Engineering and Geology, which form part of the King's Buildings, situated near Blackford Hill. The architects for the buildings are Messrs. Lorimer & Matthew. A visit was thereafter paid to the Reid Memorial Church, also adjoining Blackford Hill, the architect whereof is Mr. Leslie G. Thomson, A.R.I.B.A. This church is being erected in terms of a bequest of around £50,000 by the late Mr. William Cramb Reid in memory of his father. The style of architecture is Free Gothic with Scottish emphasis, both in design and material. There are sundry sculptured figures and panels by Mr. Alex. Carrick, R.S.A. The church will be completed within the next twelve months or thereby.

CHARTERED SURVEYORS' INSTITUTION.

The sixty-third annual report of the Council of the Chartered Surveyors' Institution was presented at the annual general meeting held on Monday, June 1. In the course of this it is stated that the year under review will be marked in the history of the Institution as that which saw the incorporation of the word "Chartered" in its title, a change which received the approval of His Majesty's Privy Council in November. While there must be cause for regret in the passing of a name widely known and honoured for fifty years, the Council feel that this important step, which was only taken after full consultation, through the County Branches, with members generally, is more than justified. The new title of the Institution serves to emphasise the fact that its members, and they only, have the right to describe themselves as Chartered Surveyors, and, at the same time, acts as an automatic and continuous reminder to the public of the significance of that designation.

The following table shows the membership of the Institution to date compared with last year :—

	May, 1930.	May, 1931.	
Honorary Members	29	29	—
Fellows	2,675	2,720	+ 45
Colonial Fellows	135	137	+ 2
Professional Associates ...	3,094	3,198	+ 104
Associates	35	34	− 1
Probationers	928	1,130	+ 202
Students	436	346	− 90
Total	7,332	7,594	+ 262

The Report also dealt with finance, examinations, scholarships, publications, library and collections, Standing and Special Committees, the County Branches, the Junior Organisation, the employment register, etc. The presentation of prizes was also made at the meeting.

West Country Branch.

The annual meeting of the Gloucestershire, Somerset and North Wilts. branch of the Chartered Surveyors' Institution was held at the Berkeley Café, Bristol, Mr. F. Peter being in the chair.

The annual report showed that the membership of the branch was 202, comprising 52 Fellows, 98 Professional Associates, 21 Probationers, and 21 Students.

The following officers were elected for the ensuing year :—chairman, Mr. J. R. Corbett (Bristol); vice-chairman, Mr. C. F. Dawson (Bristol); hon. secretary, Mr. C. H. Pritchard; and assistant hon. secretary, Mr. E. J. Clarke. The hon. secretary was presented with a wedding gift in the shape of a silver tea service, as a mark of affection and esteem from his fellow-members.

The annual meeting was followed by a luncheon which was attended by the Lord Mayor of Bristol.

THE TOWN PLANNING INSTITUTE

LONDON AS IT OUGHT TO BE.

We give below the conclusion of the discussion on this subject which took place at a recent meeting of the Town Planning Institute.

The Case of the Slums in a London Plan.

Mr. A. C. Bossom said definitely they must clear the slums from the human as well as the æsthetic point of view, for we must give consideration to the very hard-living group of men, women and children whose condition prevented them moving about.

There was no doubt that if they were willing to wreck the city and put in money at an appalling rate it would be possible to destroy very highly valuable property such as surrounded Regent's Park and replace it with tenement houses occupied by people from Bermondsey or Stepney, but this was not practicable. It would interfere in a most undesirable manner with the people themselves, so that they would not be happy when moved into this district. It would upset the rate situation to a point as to make it quite out of the question, and the cost and disadvantages made any such plan beyond consideration. But there was an answer to this, and a definite possible solution. When London's railways were constructed, many great areas, such as goods yards, shunting space, railway lines were frequently sunk below the general level of the surrounding land; in fact, within the heart of London or what would definitely be its final limit there were to-day over 40 miles of sunken tracts and at least 350 acres of such sunken land used only by trains. Reduced to simple statistics, it was possible to place satisfactorily approximately 330 people to the acre in well designed, quite satisfactory five-story tenements. There existed 120 acres that needed immediate attention, and at least another 40 acres of slum areas that should be attended to right away, making 160 acres altogether upon which were housed not less than 60,000 people.

These slum areas to-day held more than could hygienically and desirably be rehoused on the same sites. If it were possible to acquire to-morrow morning 30 acres of land within the heart of London that would not be affected by any legal proceedings or encumbered by the Rent Restriction Act, it would be possible to construct immediately on this area buildings that would hold 10,000 people, or approximately one-sixth of our worst slum areas could be decanted within a year from to-day. While this was being done, negotiations could be undertaken to enable large portions of the slum property to be acquired, so that the moment the slum-dwellers were decanted their old places could be pulled down and reconstruction started at once, so that within two years they could have the first 10,000 taken out and rehoused on their old sites again. This same plan could be repeated five times, thus caring for all our worst slums in a period not exceeding eight years, and probably in less. The plan suggested would only require tenement dwellers to be away from their general location somewhere about a year at the most and, if it would be possible to find such vacant sites that would constitute these 30 acres of decanting land near where their present slum dwelling existed they could keep in touch even during that time.

In the heart of London there existed these 350 acres of land that did nothing but allow trains to run about below the level of the ground, and where from a height of about 16 feet to the sky there was no use being made of it. There were about 40 acres in the general Paddington area, there was a lot more in Hackney, Farringdon-road, around York-road, Kensington, down to the docks. It was curious that one of the oddest conditions that we had in England was to hear the directors of our great railways bemoaning the hard times and their dwindling revenues, and yet here was literally a gold mine, a possibility, if they would but co-operate with the municipal authorities and make this space usable.

The suggestion was that over these open tracks a steel and concrete mat be constructed, 16 feet above them, and, upon this, thoroughfares that would lead from the heart of the city to its perimeter; and housing work—in fact, all sorts of buildings—be constructed that would supply a definite need and take away at once the restricting influence from the clearance of our slums.

There would naturally be a statement that this would be great expense. Well, figuring on the expense that was encountered in America, where this had been done continuously and most successfully, in New York, Chicago, etc., it was safe to assume that the maximum expense which could be figured on in London would be 14s. per square foot to provide all this lower structure, foundations, steel columns and first floor mat; but, against this, there was the credit that must be allowed for the ordinary foundation cost, etc., in the ordinary tenement, which amounted to not less than 5s. Therefore, the figures that were worked out indicated that about 9s. a square foot was practically the maximum expense that would have to be faced, and when we realised that the American worker got 3½ to 5 times the salary of our worker, it was highly probable that it would be possible to reduce this figure very materially and somewhere in the neighbourhood of £6,000 to £10,000 an acre would be the cost of creating this new land right in the heart of the city.

The plan that one would suggest was that there be five areas, each of which would hold 1,000 people, and be about three acres in extent, and ten areas of about 1½ acres and holding 500 people, each to be scattered over various parts of London. This could be done right away. They could start at once and get a result. To prove whether this was possible or not, they could look for an example to Park-avenue, New York, which was built entirely over the tracks of trains and where the lecturer had lived personally for four years. They did not feel the trains at all, they had no worries, and they got higher rents on that thoroughfare than any other thoroughfare in the world.

The Influence of London's Rivers.

Mr. W. R. Davidge said that the Thames and its tributary rivers had made London what it was. All through the long centuries they had been steadily and continuously at work, first bringing much of the soil which made London, then shaping its outlines and moulding its destiny; first spreading in wide indefinite sheets of water, but gradually digging deeper and deeper channels in which to confine and partly efface themselves. Father Thames and his family had devoted their whole lives to the service of London. They provided her with pure water, they brought her commerce on the flowing tide, and together they carried away her refuse. The curves and sweeps of the river were not mere accident; the position of the tributary streams, their points of junction with the main river and the soil which they brought down with them had all gone to the shaping of London. From the earliest moment of its existence the road planning of London had not only been influenced by but had depended almost entirely on the river.

The essentials of any plan for the redevelopment of London must include :—

(1) The completion of the ways out of London. Great West-road, Western-avenue, New Cambridge-road, Eastern-avenue, etc.

(2) The provision of new ways wherever possible. Lee Valley (to the north-east), Thames Embankment (to the west and south-west) and riverside drives.

(3) The completion of the North circular and South circular roads, and their linking up by a high-level bridge at Woolwich.

(4) The crossing of main streams of traffic wherever practicable, at different levels. This was only possible by the use of the river valleys and particular places where the levels permitted. The bridging of the Strand at Wellington-street was an instance.

(5) The removal, wherever possible, of obstructions to the free flow of traffic, and the provision of alternative routes to all main thoroughfares. Railways were the greatest obstacle to a satisfactory plan of surface development and must inevitably be put underground throughout the whole central area of London. This would in itself set free a number of potential routes out of London, e.g., Ludgate to Dulwich, Fenchurch-street to the East, London Bridge to New Cross. The latest scheme for Charing Cross bridge suffered like its predecessors, from the limitations imposed by the presence of the railway above ground, and the cost of this one improvement (£13,000,000) showed how impracticable it was to deal with the replanning of London in a piecemeal fashion. Once the railway from Charing Cross to Cannon-street and London Bridge could be moved, the way would be clear for a new southern boulevard which would be of immense value in the distribution of traffic south of the Thames.

Roundabouts were only effective where the circle was of sufficiently large diameter to enable the traffic to sort itself into a definite stream. There was a distinct limit to their capacity, and no street which was at present running full with traffic could have another stream crossing it without reducing its efficiency. The introduction of any further traffic circus in the Strand as suggested at Charing Cross was a very risky experiment, and he very much doubted whether the new Charing Cross bridge, as at present planned, was worth having at all, at the price prospect.

Traffic and Transport.

Mr. H. V. Lanchester said London at the present time was sadly disorganised. This had come about by reason of the rapid technical changes in the methods of living and of production that had taken place during the last fifty years or so, accentuated by the excessive caution characteristic of our race in the adoption of new expedients, which were not accepted until conditions became so intolerable that these were forced upon us. Thus they were generally about twenty years behind where they should be in giving effect to the remedial measures, and every one of these years increased their difficulties. The most obvious of their problems was the traffic congestion in the streets. The recent Press campaign for drastic street widening fortunately fell flat, probably because it was so obviously useless, in view of the fact that the congestion was due almost entirely to the intersection of routes, which reduced the traffic capacity of a street by about half. In this matter what they needed was a comprehensive plan of traffic routing, providing for continuous stream flow and eliminating as far as possible the alternate damming up of two or more lines of traffic now in use under police or automatic controls. As regarded the increase of road areas, which might be admitted to be a necessity in some cases, the most economical way of securing this would be by a grant of an increased amount of building to be permitted in exchange for land given up to the public in an approved position.

Under the existing building regulations, London was in serious danger of becoming overbuilt to such an extent that the main routes would cease to be adequate. He did not think it practicable to modify to any great extent the building regulations for a central area covering about 12 square miles, but outside this, judicious zoning for building volume was urgently required.

Of the two main objects in zoning, namely, the locating of areas for various purposes and the limitation of building density, the appli-

SOCIETIES AND INSTITUTIONS

INSTITUTE OF LANDSCAPE ARCHITECTS.

A PAPER on "Austrian Baroque Gardens" was given at the Royal Horticultural Society's Hall on June 2, by Mr. G. A. Jellicoe, A.R.I.B.A., A.I.L.A. Sir Reginald Blomfield was in the chair.

The geographical position of Austria had been both her strength and weakness, said the speaker. On the one hand she formed the Christian bulwark against the Turk, a fact that prevented her development until 1683; and, on the other, this same fact tended to raise her as their natural protector above the other German States. The history of Austria was that of the Hapsburg dynasty, and the effective art history lasted for little more than the first half of the eighteenth century (when Austrian prestige had superseded that of France). The two art influences were Italy and France—Italy because she was the centre of culture and in close proximity, and France because of the political eminence of Louis XIV during the seventeenth century. A comparison of two gardens, the Villa Marlia in Tuscany and Chantilly in France, indicated the more personal character of the former in contrast to the monumental entertaining character of the latter. The small ecclesiastical principality of Salzburg gave rise to the first baroque garden north of the Alps. Schloss Hellbrunn was built by the Italian Solari in 1613. The plan, said the lecturer, had much charm and was Tuscan in feeling, but the general layout was weak.

Vienna developed after the raising of the siege in 1683, and a summer palace outside the ramparts beyond the green open belt (now the Ring) became fashionable. At first Italians were called in: Domenico Martinelli built the Leichenstein palaces, with perhaps the best detail in Vienna. Very soon two Austrians, Fischer von Erlach and Lukas von Hildebrandt, came almost to monopolise work. Activity west of the city gave rise to a series of gardens on the rising ground with superb views, that were to-day nearly complete. These were the Schwarzenbourg Palace, the Belvedere Palaces (for Prince Eugene of Savoy, the national hero), the Silesian Nunnery and the Botanical Gardens, The first of these, by Fischer von Erlach, was delightfully planned in rising terraces, but did not equal its neighbour, the Belvedere. The two palaces were built by Hildebrandt, and the garden between laid out by Francois Girard, a pupil of Le Notre. This scheme represented the peak of Austrian garden design, and held its own with any in Europe. With its sense of form, its relation to the Vienna basin, and spectacular effects, it epitomised baroque art.

Among gardens outside Vienna, Schonborn (Gollersdorf), Schlosshof (Marchegg), and the Mirabelle gardens at Salzburg, had remains of fine gardens. The greatest of all was the imperial Schonbrunn, begun in 1696 by Fischer (whose first design was abandoned through expense), and dated in its present form from the time of Maria Theresa. Schonbrunn was cruder than Versailles, which it sought to emulate, but had an air of intimacy that Versailles lacked It was significant that Marie Antoinette, Marie Theresa's daughter, who spent her childhood at Versailles, should feel the need of the Petit Trianon and Dairy Farm. It was magnificently spectacular, and represented the last great effort of the Baroque.

Architecturally, with the exception of the Belvedere, there was no Austrian garden that could equal the masterpieces from Italy or France. The detail was essentially vigorous, however, especially the sculpture and ironwork. Flowers played little part, for the same reason as in France, that the monumental scale did not call for the intimacy with which they are usually associated. The Austrian garden was essentially for a town. Even on open country sites there was rarely if ever the same sympathy to surroundings that was found in the Italian garden, nor was there the forceful extension into Nature adopted by Le Notre. The development of clipped hedges, possibly the grandest in Europe, was but an expression of the rigid formality of court life. For this the gardens were a perfect setting.

A vote of thanks to the lecturer was, on the proposal of H.E. the Austrian Ambassador, carried unanimously.

R.I.B.A.

The nominations for the four vacancies as vice-presidents of the R.I.B.A are :— Mr. L. S. Sullivan, F.R.I.B.A., Mr. Sydney Tatchell, F.R.I.B.A. (London); Professor C. H. Reilly, O.B.E, F.R.I.B.A (Liverpool); and Mr. Ernest C. Bewlay, F.R.I.B.A. (Birmingham).

At the meeting of the Royal Institute on Monday, the Hon. Secretary announced the deaths of :—

Dr. Thomas Ashby, elected an Hon. Associate 1922.

George Charles Inskip, elected a Fellow 1886, transferred to Retired Fellowship 1917. Mr. Inskip was R.I.B.A. Hon. Secretary for Australia from 1900 to 1920, and was also a past president of the Royal Victorian Institute of Architects.

Charles William English, elected Licentiate 1910, Fellow 1921.

Alexander Gordon, president of the Institute of Architects of Malaya, elected Associate 1921, Fellow 1928.

Owen Carey Little, elected Licentiate 1911, and Fellow 1912.

William Henry Stucké, elected Associate 1889, Fellow 1910.

Robert Bentley, elected Licentiate 1911.

Arthur Montgomerie Howard-Jones, transferred to Licentiateship 1925.

Frederick John Matthews, transferred to Licentiateship 1925.

Archibald Anderson Symon, elected Licentiate 1910.

Thomas E. Taylor, elected Licentiate 1911.

Frederick William Taylor, elected Licentiate 1911.

The regrets of the Institute for their loss were entered on the Minutes, and messages of sympathy and condolence have been conveyed to their relatives.

At a business meeting held after the close of public proceedings on Monday night, the following resolution was agreed to:— "That the Declaration to be signed by a Licentiate be amended as follows :—After the word "am," third line, delete the words "not engaged in any other avocation than that of an Architect or Architect and Surveyor," and insert the words "engaged in the study (or practice) of Architecture, and have attained the age of thirty years"; further, "That the necessary steps be taken to obtain the sanction of the Privy Council to such amendment as is required to give effect to this resolution."

INCORPORATED SCOTTISH ARCHITECTS.

At the monthly meeting of the Council of the Royal Incorporation of Architects in Scotland held at 15, Rutland-square, Edinburgh—Mr. John Watson, A.R.S.A., president, in the chair—Mr. J. A. Arnott, F.R.I.B.A., Edinburgh, was elected as representative of the Incorporation to the R.I.B.A. Board of Architectural Education for year 1931-32. There were 58 competitors for the various Incorporation prizes for session 1930-31, the winners being as follow: Mr. Basil Spence, Edinburgh College of Art, who gained first place in the Rowand Anderson competition—silver medal and £100; and Mr. John D. Carnegie, Edinburgh College of Art, who gained second place—£20; Mr. T. Arnold Jeffreys, Edinburgh College of Art—Rutland Prize £50; Mr. A. W. Varcoe, Edinburgh College of Art—Incorporation Prize, £15; and Mr. J. N. Summerson, B.A., London, late of the Edinburgh College of Art—essay prize, £20. The following were elected members of the Incorporation:—Mr. W. J. Taylor, Inverness—as Fellow; Mr. J. F. Coull, Leith; Mr. A. M. Neilson, Joppa; and Mr. J. S. Ross, Inverness—as Associates; and Miss E. M. Sherwell, Edinburgh—as student.

EDINBURGH ARCHITECTURAL ASSOCIATION.

In the last of the monthly visits arranged by the Edinburgh Architectural Association, a large number of members visited the Edinburgh University Departments of Engineering and Geology, which form part of the King's Buildings, situated near Blackford Hill. The architects for the buildings are Messrs. Lorimer & Matthew. A visit was thereafter paid to the Reid Memorial Church, also adjoining Blackford Hill, the architect whereof is Mr. Leslie G. Thomson, A.R.I.B.A. This church is being erected in terms of a bequest of around £50,000 by the late Mr. William Cramb Reid in memory of his father. The style of architecture is Free Gothic with Scottish emphasis, both in design and material. There are sundry sculptured figures and panels by Mr. Alex. Carrick, R.S.A. The church will be completed within the next twelve months or thereby.

CHARTERED SURVEYORS' INSTITUTION.

The sixty-third annual report of the Council of the Chartered Surveyors' Institution was presented at the annual general meeting held on Monday, June 1. In the course of this it is stated that the year under review will be marked in the history of the Institution as that which saw the incorporation of the word "Chartered" in its title, a change which received the approval of His Majesty's Privy Council in November. While there must be cause for regret in the passing of a name widely known and honoured for fifty years, the Council feel that this important step, which was only taken after full consultation, through the County Branches, with members generally, is more than justified. The new title of the Institution serves to emphasise the fact that its members, and they only, have the right to describe themselves as Chartered Surveyors, and, at the same time, acts as an automatic and continuous reminder to the public of the significance of that designation.

The following table shows the membership of the Institution to date compared with last year :—

	May, 1930.	May, 1931.	
Honorary Members	29	29	—
Fellows	2,675	2,720	+ 45
Colonial Fellows	135	137	+ 2
Professional Associates ...	3,094	3,198	+ 104
Associates	35	34	− 1
Probationers	928	1,130	+ 202
Students	436	346	− 90
Total	7,332	7,594	+ 262

The Report also dealt with finance, examinations, scholarships, publications, library and collections, Standing and Special Committees, the County Branches, the Junior Organisation, the employment register, etc. The presentation of prizes was also made at the meeting.

West Country Branch.

The annual meeting of the Gloucestershire, Somerset and North Wilts. branch of the Chartered Surveyors' Institution was held at the Berkeley Café, Bristol, Mr. F. Peter being in the chair.

The annual report showed that the membership of the branch was 202, comprising 62 Fellows, 98 Professional Associates, 21 Probationers, and 21 Students.

The following officers were elected for the ensuing year :—chairman, Mr. J. R. Corbett (Bristol); vice-chairman, Mr. C. F. Dawson (Bristol); hon. secretary, Mr. C. H. Pritchard; and assistant hon. secretary, Mr. E. J. Clarke. The hon. secretary was presented with a wedding gift in the shape of a silver tea service, as a mark of affection and esteem from his fellow-members.

The annual meeting was followed by a luncheon which was attended by the Lord Mayor of Bristol.

THE TOWN PLANNING INSTITUTE

LONDON AS IT OUGHT TO BE.

We give below the conclusion of the discussion on this subject which took place at a recent meeting of the Town Planning Institute.

The Case of the Slums in a London Plan.

Mr. A. C. Bossom said definitely they must clear the slums from the human as well as the æsthetic point of view, for we must give consideration to the very hard-living group of men, women and children whose condition prevented them moving about.

There was no doubt that if they were willing to wreck the city and put in money at an appalling rate it would be possible to destroy very highly valuable property such as surrounded Regent's Park and replace it with tenement houses occupied by people from Bermondsey or Stepney, but this was not practicable. It would interfere in a most undesirable manner with the people themselves, so that they would not be happy when moved into this district. It would upset the rate situation to a point as to make it quite out of the question, and the cost and disadvantages made any such plan beyond consideration. But there was an answer to this, and a definite possible solution. When London's railways were constructed, many great areas, such as goods yards, shunting space, railway lines were frequently sunk below the general level of the surrounding land; in fact, within the heart of London or what would definitely be its final limit there were to-day over 40 miles of sunken tracts and at least 350 acres of such sunken land used only by trains. Reduced to simple statistics, it was possible to place satisfactorily approximately 330 people to the acre in well designed, quite satisfactory five-story tenements. There existed 120 acres that needed immediate attention, and at least another 40 acres of slum areas that should be attended to right away, making 160 acres altogether upon which were housed not less than 60,000 people.

These slum areas to-day held more than could hygienically and desirably be rehoused on the same sites. If it were possible to acquire to-morrow morning 30 acres of land within the heart of London that would not be affected by any legal proceedings or encumbered by the Rent Restriction Act, it would be possible to construct immediately on this area buildings that would hold 10,000 people, or approximately one-sixth of our worst slum areas could be decanted within a year from to-day. While this was being done, negotiations could be undertaken to enable large portions of the slum property to be acquired, so that the moment the slum-dwellers were decanted their old places could be pulled down and reconstruction started at once, so that within two years they could have the first 10,000 taken out and rehoused on their old sites again. This same plan could be repeated five times, thus caring for all our worst slums in a period not exceeding eight years, and probably in less. The plan suggested would only require tenement dwellers to be away from their general location somewhere about a year at the most and, if it would be possible to find such vacant sites that would constitute these 30 acres of decanting land near where their present slum dwelling existed they could keep in touch even during that time.

In the heart of London there existed these 350 acres of land that did nothing but allow trains to run about below the level of the ground, and where from a height of about 16 feet to the sky there was no use being made of it. There were about 40 acres in the general Paddington area, there was a lot more in Hackney, Farringdon-road, around York-road, Kensington, down to the docks. It was curious that one of the oddest conditions that we had in England was to hear the directors of our great railways bemoaning the hard times and their dwindling revenues, and yet here was literally a gold mine, a possibility, if they would but co-operate with the municipal authorities and make this space usable.

The suggestion was that over these open tracks a steel and concrete mat be constructed, 16 feet above them, and, upon this, thoroughfares that would lead from the heart of the city to its perimeter; and housing work—in fact, all sorts of buildings—be constructed that would supply a definite need and take away at once the restricting influence from the clearance of our slums.

There would naturally be a statement that this would be great expense. Well, figuring on the expense that was encountered in America, where this had been done continuously and most successfully, in New York, Chicago, etc., it was safe to assume that the maximum expense which could be figured on in London would be 14s. per square foot to provide all this lower structure, foundations, steel columns and first floor mat; but, against this, there was the credit that must be allowed for the ordinary foundation cost, etc., in the ordinary tenement, which amounted to not less than 5s. Therefore, the figures that were worked out indicated that about 9s. a square foot was practically the maximum expense that would have to be faced, and when we realised that the American worker got 3½ to 5 times the salary of our worker, it was highly probable that it would be possible to reduce this figure very materially and somewhere in the neighbourhood of £6,000 to £10,000 an acre would be the cost of creating this new land right in the heart of the city.

The plan that one would suggest was that there be five areas, each of which would hold 1,000 people, and be about three acres in extent, and ten areas of about 1¼ acres and holding 500 people, each to be scattered over various parts of London. This could be done right away. They could start at once and get a result. To prove whether this was possible or not, they could look for an example to Park-avenue, New York, which was built entirely over the tracks of trains and where the lecturer had lived personally for four years. They did not feel the trains at all, they had no worries, and they got higher rents on that thoroughfare than any other thoroughfare in the world.

The Influence of London's Rivers.

Mr. W. R. Davidge said that the Thames and its tributary rivers had made London what it was. All through the long centuries they had been steadily and continuously at work, first bringing much of the soil which made London, then shaping its outlines and moulding its destiny; first spreading in wide indefinite sheets of water, but gradually digging deeper and deeper channels in which to confine and partly efface themselves. Father Thames and his family had devoted their whole lives to the service of London. They provided her with pure water, they brought her commerce on the flowing tide, and together they carried away her refuse. The curves and sweeps of the river were not mere accident; the position of the tributary streams, their points of junction with the main river and the soil which they brought down with them had all gone to the shaping of London. From the earliest moment of its existence the road planning of London had not only been influenced by but had depended almost entirely on the river.

The essentials of any plan for the redevelopment of London must include :—

(1) The completion of the ways out of London. Great West-road, Western-avenue, New Cambridge-road, Eastern-avenue, etc.

(2) The provision of new ways wherever possible. Lee Valley (to the north-east), Thames Embankment (to the west and south-west) and riverside drives.

(3) The completion of the North circular and South circular roads, and their linking up by a high-level bridge at Woolwich.

(4) The crossing of main streams of traffic wherever practicable, at different levels. This was only possible by the use of the river valleys and particular places where the levels permitted. The bridging of the Strand at Wellington-street was an instance.

(5) The removal, wherever possible, of obstructions to the free flow of traffic, and the provision of alternative routes to all main thoroughfares. Railways were the greatest obstacle to a satisfactory plan of surface development and must inevitably be put underground throughout the whole central area of London. This would in itself set free a number of potential routes out of London, e.g., Ludgate to Dulwich, Fenchurch-street to the East, London Bridge to New Cross. The latest scheme for Charing Cross bridge suffered like its predecessors, from the limitations imposed by the presence of the railway above ground, and the cost of this one improvement (£13,000,000) showed how impracticable it was to deal with the replanning of London in a piecemeal fashion. Once the railway from Charing Cross to Cannon-street and London Bridge could be moved, the way would be clear for a new southern boulevard which would be of immense value in the distribution of traffic south of the Thames.

Roundabouts were only effective where the circle was of sufficiently large diameter to enable the traffic to sort itself into a definite stream. There was a distinct limit to their capacity, and no street which was at present running full with traffic could have another stream crossing it without reducing its efficiency. The introduction of any further traffic circus in the Strand as suggested at Charing Cross was a very risky experiment, and he very much doubted whether the new Charing Cross bridge, as at present planned, was worth having at all, at the price prospect.

Traffic and Transport.

Mr. H. V. Lanchester said London at the present time was sadly disorganised. This had come about by reason of the rapid technical changes in the methods of living and of production that had taken place during the last fifty years or so, accentuated by the excessive caution characteristic of our race in the adoption of new expedients, which were not accepted until conditions became so intolerable that these were forced upon us. Thus they were generally about twenty years behind where they should be in giving effect to the remedial measures, and every one of these years increased their difficulties. The most obvious of their problems was the traffic congestion in the streets. The recent Press campaign for drastic street widening fortunately fell flat, probably because it was so obviously useless, in view of the fact that the congestion was due almost entirely to the intersection of routes, which reduced the traffic capacity of a street by about half. In this matter what they needed was a comprehensive plan of traffic routing, providing for continuous stream flow and eliminating as far as possible the alternate damming up of two or more lines of traffic now in use under police or automatic controls. As regarded the increase of road areas, which might be admitted to be a necessity in some cases, the most economical way of securing this would be by a grant of an increased amount of building to be permitted in exchange for land given up to the public in an approved position.

Under the existing building regulations, London was in serious danger of becoming overbuilt to such an extent that the main routes would cease to be adequate. He did not think it practicable to modify to any great extent the building regulations for a central area covering about 12 square miles, but outside this, judicious zoning for building volume was urgently required.

Of the two main objects in zoning, namely, the locating of areas for various purposes and the limitation of building density, the appli-

cation of the first to London would demand a great deal of study, but for the second, reasonable decisions could be reached, on the basis of a series of scales, with much less preliminary work. Going outside the central area mentioned, the next highest scale would apply to subsidiary centres and to strips following the lines of important thoroughfares. Between these strips the areas would be graded from those near the centre to the districts developed under town planning schemes or on similar lines. This was more or less the method adopted by St. Louis in zoning for density.

The present defects in traffic control and the future dangers from overbuilding were not, however, the only points demanding attention in relation to traffic disorganisation and congestion. For a number of years he had been advocating the disentanglement of suburban from long-distance railway traffic and the reorganising of the suburban (electrified) lines in physical connection with the existing and with additional underground and tube railways. At present there were one or two illustrative instances, such as the line from Baker-street and that from Southwark to Watford, but what he visualised was a number of routes running under the central area and going out 20 miles or so in each direction so that terminals would all be on the outer edge of this circle, and the trains would shuttle through London where the numerous exchange stations would permit change of route.

He was not very hopeful about the possibility of such a drastic change, but now that the Weir report had pronounced so definitely in favour of electric traction generally, it seemed to bring such a programme comparatively close. It was claimed that an expenditure of £261,000,000 during the next 15 or 20 years would result in an annual saving of over £17,000,000, apart from possible revenue from the value of the sites over terminal stations and over the routes themselves, which could in city areas be developed as arterial roads. The estimates in this report only covered a small proportion of his own for the London area, so that he was treating this as a problem which, while independent of the Weir Committee's proposals, would be easy of solution if the latter were accepted.

What he had had in mind was far less comprehensive than the programme of the Weir report, inasmuch as he had not considered the electrification of long-distance trains, but it would affect the London area to a greater extent by removing all suburban traffic from the existing terminal stations, which would eliminate half of these. By suitable readjustment King's Cross, St. Pancras (possibly), Euston, Marylebone, Paddington, Victoria and Waterloo, would suffice for all long-distance trains. Liverpool-street he omitted as not a convenient starting-point for the East Coast towns and Continental routes, but it would be retained as an underground suburban through station. The other seven terminals could be dispensed with.

It might be asked what was to be gained by such a revolutionary programme, but in view of the great effect it would have on the traffic system of London he believed it would be amply justified. The advantages might be cited as follows:—(1) The removal from the streets of an enormous mass of traffic caused by passengers between the terminal stations and their places of business. The substituted railway scheme would land almost every one within 300 yards of his destination. (2) The much shorter time and reduced strain of the daily journey owing to simplification, independence of weather conditions, etc. (3) The opportunity the scheme would give for suitably developing the sites of the abandoned terminals and the long viaducts serving them as part of a fine street improvement plan.

A rough approximation of the cost of such a scheme, including the variations it would involve in providing for handling goods and parcels, was 140 millions, but the value of recoupments would be about a quarter of this sum. As against the balance it might be estimated that some half-million people, at the least, would save one quarter of an hour per day, say, 80 hours per annum, equal at an average of two shillings per hour to £8. Thus they arrived at £4,000,000 a year, apart from general amelioration of traffic conditions in the streets, and of the increased comfort to the workers of London, and if these approximate figures were as near the mark as he thought they were, it was clear that such an undertaking could be regarded as a paying proposition.

There had been other proposals for the improvement in traffic conditions, but he did not see any that could operate so efficiently as this. An increased use of the river had been urged, but owing to the strength of the tide and the tortuous course it did not look as if even the best-designed boats could compete with other forms of transport. The river had, however, one reach well adapted for receiving flying-boats —that immediately below Putney Bridge, and it might be reserved for this purpose. The suggestion that a couple of the large railway goods yards might be roofed over as an aerodrome might also be considered, but the drawback to both these ideas was the London fog, which would interrupt the regularity of any commercial service. For these reasons, he was convinced that the main hope of making our Metropolis a well-organised city lay in judicious zoning and a reconstruction of the railway system.

Dr. Raymond Unwin said they had to try and focus their minds on a subject which was almost too big for human minds to be focused upon, and to do that they had to select, if possible, things which must be taken in order and which were foundational. They were living in a time which was really very exciting for the town-planner, and was extremely interesting. They had before Parliament a Bill for unifying the control in the public interest of all the means of transport within the London area, including the suburban traffic of the trunk lines. For the first time in the history of London they might begin to envisage unified traffic control. Things which a year ago seemed fabulous dreams were now within the range of possibility. They had also the Town Planning Bill, which, for the first time, would make it possible to provide a complete plan for London and would enable agreements to be made with the local authorities for the setting up of a Regional Statutory Committee, with power to organise the town-planning of Greater London as one unit for a radius of 25 miles from Charing Cross. That Bill would give them also the power to say where development might take place, and where, for the time being at all events, it should not take place. For the first time they would have powers to make a good and healthy beginning in the direction of the preservation of open space. It would give them the opportunity of beginning to gather together their development altogether in nuclei. Already the Minister of Health had promised further consideration of this subject to see if further facilities and powers could be given for the development of satellite units. They would get factories and buildings in groups with shops where the people could buy what they wanted and provision for education and recreation. As to the centre of London, they had to get some big fundamental conception; to realise that London was a great enterprise; that there were functions which were central and must be gathered into the centre, and that the people exercising the key functions for the country and the Empire ought not to be cluttered up by the millions of people who only came to the centre of London to buy collars and frocks. They could not afford to have the City of London inhabited at night by 11,000 caretakers and people of that sort. They ought to have places reserved for residences. These things would not be done in his lifetime, but he thought the owners were more hopeful that they were making a start on the right lines. He would not be content with Mr. Bossom's modicum of slums for abolition, for there were many square miles in the East End which ought to be rebuilt.

Alderman E. Culpin (London County Council) pointed out that there were over 300 bodies charged with statutory duties of some kind or another in the area which Dr. Unwin was dealing with at the present time and there must be some co-ordination of local government. Local patriotism was good, but it often resulted in the hanging up of big things. He would like to see the area Dr. Unwin spoke about as one unit. If they liked, they could sweep away the London County Council and set up a Home Counties Parliament.

Captain Swinton expressed his pleasure that people now realised that the real question for London was the traffic problem.

Mr. Buttenheim (New York) and Mr. Buss also took part in the discussion.

CENTRAL SCHOOL OF ARTS AND CRAFTS

An exhibition of students' work is now being held at the Central School of Arts and Crafts, Southampton-row, W.C.1. When we say students' work perhaps it should be added that those, whatever their age, who desire instruction in any particular branch of art are eligible for admission at this school; for instance, we see the work of a well-known black-and-white artist, who desired a knowledge of lithography. Generally, the exhibition is sound in character, devoid of the extreme in modern design—design bordering on eccentricity. The architecture is of a type and character which would accord with the landscape and not be a blot upon it, as is too commonly the case to-day. The design for an hotel on the Cornish coast, by Mr. H. W. G. Hawkes, is well planned and shown by a workmanlike set of drawings. A well-proportioned dining-room, with kitchen and intercepting service, well placed, the drawing-room and lounge facing south. The entrance hall is spacious, with a dignified staircase—on the first floor good bedroom accommodation is provided. There is ample garage and parking space. The elevations are of a simple and sturdy character, and would sit well upon the site and withstand the buffeting of the weather which Cornwall has at certain periods of the year. Another exhibit is a design for a house and dairy farm by Mr. A. Wilkinson. This is in stone and has a pleasing simplicity both in plan and elevation. Mr. H. S. Pitt has a design for a public-school library to be built in limestone and red ironstone; it is an addition to a public school of old foundation. No doubt the character of the old building has been considered. Other interesting architectural designs are on view. Some of the cabinet-making exhibits show considerable skill, with a recognition of the beautiful figuring of the wood used, notably the walnut veneer worktable by Miss J. Mackworth. Another walnut cabinet, by Mr. Hale, is a pleasing piece with delicately raised panels. The base, perhaps, is a little weak.

The pottery section is a strong one. Many admirable and pleasing shapes are to be seen, mostly showing Chinese influence. The exhibits are attractive on account of their simplicity of form, glaze and colour. Exhibits by Mrs. Rhodes are particularly good. The prices in some instances are added, which is useful to intending buyers. In lithography, an amusing print is shown by Mr. H. Massingham entitled "Sunday Evening," and another by Mr. Geo. Morrow entitled "The Man who Took the Saxophone Everywhere He Went." The painting (oil) is the least satisfactory; with few exceptions the colouring is dirty and coarse. Many other branches of the arts and crafts, such as silversmith's work, etching, costume design and bookbinding are represented in the good work on view.

THE NEW FORM OF BUILDING CONTRACT: EXPLAINED AND ANNOTATED.—I.

By W. T. CRESWELL, Barrister-at-Law, Hon. A.R.I.B.A., A.S.I.

Generally.

An eminent lawyer commenting on the old form of contract, known as the R.I.B.A. 1909 form, wrote: "In fact, the position of the builder, under a contract of this kind, is so bad that I have often wondered how any man can allow himself to sign such an agreement." Nevertheless, this form is widely accepted and has been in frequent use, although Government Departments and most public bodies and large companies have all along used, and no doubt will continue to use, their own special forms drafted for their own particular purposes, thus avoiding the adaptation to their purpose of any so-called national form and the risk of what has too often happened—the ultimate resort to the Courts to gain a construction of the document owing to some ambiguity or disharmony arising from such adaptation. Documents, drawings, plans, specifications, though forming parts of a building contract, must, it should be remembered, be *construed together one with the others* (see R. *v.* Peto (1826) I. Y. and J. 37, and Cunliffe *v.* Hampton Wick L.B. (1893) 9 T.L.R. 378).

The case of Barker *v.* Hurlingham Club, only reported in Ball and Hope's "National Form of Building Contract," illustrates the difficulties possibly attending the adding to or taking away from any settled form of building contract. Here a clause numbered 13a, and written in the 1909 form after clause 13, read: "No extras whatever will be allowed except upon a written blue order signed by the employer and the architect, the cost being first ascertained and approved by the committee." On a dispute arising as to payment for certain works, the matter was referred to arbitration and the arbitrator held, in effect, that when any item cost more than the amount entered in the specification or if it was an extra, nothing extra could be allowed in the absence of a blue order, which meant that clause 13a overruled all other clauses dealing with extras in the contract; but the Court held that the other clauses were not affected and that clause 13a only limited the power of the architect in that he was prevented thereby from ordering work altogether outside the contract unless the price of such work could be either priced or estimated with reasonable certainty.

Most of the recent ruling decisions given by the Courts are based on the 1909 form, so that those who have been in the habit of using it have, in spite of all its pitfalls, become accustomed to construe it for themselves in accordance with custom and Case Law in superintending building works with some degree of certainty. It is only to be anticipated that some litigation will arise under the new form, for however carefully it may have been drafted, some diversity of opinion on its true construction is inevitable. It must be noted that the form is only applicable where quantities form part of the contract, and although we understand that a form may be in the making which would be applicable to contracts where quantities do *not* form part of the contract, we think that for works of any magnitude quantities should invariably form part of the contract; and to that end these should be prepared by duly qualified persons so as to be accurate; the urgency of this is clear when it is remembered that there is no implied warranty of their accuracy on which the contractor can rely; not even is it customary for the employer in any way to guarantee their accuracy, nor is the surveyor who prepares the quantities liable to the contractor for any error or discrepancy therein. The sum payable by the employer to the contractor in respect of the work is referred to in the new form as the "Contract sum."

Lump Sum Contracts.

In an entire or lump-sum contract, usually such works as are indispensable or necessary to its completion cannot be claimed as "extras" on the contract, but the effect of making the bills of quantities part of the contract is actually that they become not a mere estimate or schedule of prices, but *part of the description* of the works; and if the contractor is required in order to complete the whole of the work to do more work than is described or taken off in the quantities, he is justly entitled to be paid for it as "extra" work (see Patman and Fotheringham, Ltd. *v.* Pilditch (1904), 2 Hudson on Building Contracts, 368).

In London Steam Stone Saw Mills *v.* Lorden (1900) 2 Hudson on Building Contracts, 301, a clause read: "The bills of quantities to form part of the contract, and all variations to be priced at the rates stated in the bills and added to, or deducted from, the lump sum, as the case may be." In respect of a claim for variations the employer contended that he was entitled to remeasure the whole of the work and pay on that basis. But it was held that the contract was one for a lump sum and that the variations only should be measured and valued, and the amount so arrived at added to, or deducted from, the lump sum, as the case might be.

The case of Wallace *v.* Douglass, in 1910, reported in a pamphlet of the Northern Counties Federation of Building Trade Employers, further illustrates this question. The contractor (Wallace) agreed to do certain plumbing work "as per quantities" for £904 10s. 9d., and subsequently, noticing the work was being measured up, he objected that his was a lump sum contract and that he was entitled to the full amount of £904 10s. 9d., less the cost of certain work which had admittedly not been done. The defendant alleged he was bound to pay by measure and value only; and so it was held by the Court, because there was a clause in the contract as follows:—"Sizes and measurements to be taken from the drawings, instructions and measurements on the buildings *and not from the quantities.*" In giving judgment in the Court of Appeal, the Lord Chief Justice said: "It certainly is not a contract to do the work for £904 10s. 9d. however much I have got to do or however little I have got to do. . . . I think the contract means this: I will do the work specified in those quantities at these prices, but if I am not called upon to do the work specified at these prices I shall not be paid for it. . . . The essence of a strict and ordinary lump sum contract is that you get your money though you do not have to do certain things."

In Mitchell *v.* Magistrates of Dalkeith (1930) S.L.T. 80, the question at issue was one concerning the construction of a building contract—whether it was a lump sum contract or whether payment was to be at schedule rates. There was a condition that the contractor should lodge a priced schedule of quantities with his tender. The tender was accepted, and one of the items in the schedule of quantities was 420 cubic yards of clinkers, which was priced at 5s. per cubic yard, but was extended at £150 instead of £105. The discrepancy was not noticed until the work had been in progress for some time. On completion it was sought to deduct the £45 due to the discrepancy in extending the price. It was held that the contract was a lump sum contract and not according to the priced schedule, and that the sum of £45 could not be deducted.

Provision is made in the new form for the rectification of errors in bills of quantities. This we shall deal with later.

(To be continued.)

Building Science Abstracts.

Compiled by the Department of Scientific and Industrial Research, Building Science Abstracts. Vol. IV. (new series), No. 4, for April, 1931, comprising abstracts Nos. 585—747, have been issued, price 9d. net (annual subscription 10s. net post free), and may be obtained from His Majesty's Stationery Offices, at Kingsway, W.C.2, or elsewhere.

DESIGNING FOR ACOUSTICS

In his third lecture on "Acoustic Construction" at the Regent-street Polytechnic, Mr. C. W. Glover said that in order to get the best conditions it was customary to design as if the hall contained one-third of the audience it would hold when full. Where loud speakers were used there was invariably a greater volume of sound than where the speech was direct, and there was consequently a greater reverberation. Further, in the hall or studio where the sound was recorded on the disc or film there would be some vibration, and this would be recorded on the disc or film. Consequently, when the sound was reproduced, this vibration contained in the disc or film would be superimposed on that due to the auditorium where the sound was being emitted.

The lecturer gave an actual example of designing for acoustic purposes. He assumed an auditorium to seat one thousand persons. To allow two hundred cubic feet per member of audience when the hall was full, the volume of that hall should be 200,000 cubic feet. In the example he was analysing the volume actually was 209,000 cubic feet. The optimum reverberation period for a hall of this size was 2.2 seconds, from which could be deduced by the Sabine formula the fact that the total sound absorption should be 4,750 units—the unit being the equivalent of one square foot of open window. The actual absorptive power of the hall he had in mind could be set out as follows—

Plaster on tile, 6,400 sq. ft. at 0.25	=	160 units
Wood, polished, 20,000 sq. ft. at 0.04	=	800 ,,
Concrete covered with marble, 8,000 sq. ft. at 0.01	=	80 ,,
Absorbent board, 3,000 sq. ft. at 0.31	=	930 ,,
Curtains, 400 sq. ft. at 0.40	=	160 ,,
Seats, 1,000 at 1	=	1,000 ,,
		3,130 ,,

This figure, 3,130 units, represented the total permanent absorption.

Each member of the audience was assumed to be equivalent to 4.7 units of sound absorption, but as the unoccupied seat was equivalent to one unit, the fact that someone was seated upon it would only make a difference of 3.7 units. Therefore, to get the effect of the hall being one-third full, we multiplied 333 by 3.7 and got a figure of 1,232, and this being added to the 3,130 units of permanent absorption gave a total of 4,362. To arrive at a figure of 4,750 an additional 388 was required, and in the case supposed the necessary additional absorption could be provided by placing unlined carpets on the marble floor.

ILLUMINATION

In preparation for the International Illumination Congress, 1931, which is being held for the first time in Great Britain in September next, and is unlikely to take place again in this country for many years, a publication dealing with the origin, organisation and work of the International Commission on Illumination has been issued from 32, Victoria-street, S.W.1. The congress is organised by the National Illumination Committee of Great Britain and the Illuminating Engineering Society, and is held under the auspices of the International Commission on Illumination. This publication is issued by the General Council of the Congress in order that its international basis and nature may be appreciated and that it may achieve the fullest measure of success in stimulating interest in better lighting, thus not only benefiting the many associated industries, but, it is hoped above all, arousing public interest so as to further the advancement of the science and practice of Illumination in Great Britain.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—Ed

QUESTIONS.

Rights of Light.

Sir,—I have always understood that a period of 20 years was necessary to establish an ancient light, but I have heard it said that one of 19 years and a few months would be sufficient. Can you tell me which of these assumptions is correct? QUERIST.

Induction.

Sir,—I noticed during a thunderstorm recently that the electric lights in a certain building dipped at each flash of lightning. Would this indicate a defect in the installation, or is it possible that the trouble originated upon the overhead cables of the public supply, or at the generating station? LAYMAN.

Counter Floors.

Sir,—It is proposed to sheath an old deal floor with ½-in. oak sheathing. The present boards run the length of the room. Is it necessary for the sheathing boards to run at right angles across them, or may they be laid parallel over the old boards? DOUBTFUL.

Culverts.

Sir,—I should be glad to have information as to old rainwater culverts running under private properties. Are these repairable by the local authorities? Is it permitted to build over them? Can the owners of the properties through which such culverts run demand the removal of same if they obstruct building development? ANXIOUS.

Nuisance by Adjoining Owner.

Sir,—I should be obliged if you could inform me of the legal position regarding a shed or building of rough timber erected on property adjoining my garden. The structure is flush to the common fence, and the water runs off the roof into my garden, there not being any guttering affixed. I have been in communication with the local Surveyor, who has informed my neighbour that he must fix a gutter, which, however, would overhang my property. The size of the structure is 20 ft. long by approximately 8 ft. high by 6 ft. wide, 6 ft. high at eaves. HOUSEHOLDER.

Fence Problem.

Sir,—A 5 ft. 6 in. close-board fence divides my garden from my neighbour's, and is my property. My neighbour intends building a garage as close to this fence as possible; what space (if any) ought he to leave between his garage and my fence for any repairs or painting which may be necessary to the fence from his side in the future? On the other hand, may he utilise my fence for a side of his building provided he does not nail to or interfere in any way with it? To what height is he at liberty to build his garage above my fence before I am able to lodge any legitimate complaint? QUERIST.

ANSWERS.

Paint for Ironwork.

[Answers to "Querist," May 29.]

Sir,—Bitumastic paint is very suitable for ironwork, two coats of which are as sufficient as four of ordinary oils. The black variety is probably the most efficient, but the paint in colours is also obtainable. All ironwork should be thoroughly scraped clear of rust before painting. BITUM.

Sir,—A dark red iron peroxide is the type of paint wanted for exterior use. Mix purple brown ground in raw linseed oil, with boiled, to the proper working consistency and apply that after removing traces of rust.

If the work is situated in a pure atmosphere the boiled oil as a thinner will prove durable; but in a smoke-laden air a good exterior varnish must take the place of the oil. JOHN M. FIFE.

Dry Rot.

[Answer to "Architect," May 29.]

Sir,—Dry rot, which breaks out as a result of negligence on the part of the architect, either in failing to specify necessary precautions, or failing to see that those precautions are observed, is to be laid at the door of the architect. He is not protected by the Statute of Limitations in this matter. OBSERVER.

Ventilating Gas Ranges.

[Answer to "Planner," May 29.]

Sir,—The fumes from a gas range will quickly corrode ordinary galvanised piping, and specially treated stove piping should be used. PRACTICE.

Surfacing Paths.

[Answer to "Country," May 29.]

Sir,—Surfacing with graded gravel, grouted with a cold bitumen emulsion, makes a good path or drive of the type your correspondent is seeking. The bitumen should be grouted in with plenty of water, and the emulsion should be fairly fresh. METHOD.

Rubber Flooring.

[Answer to "Liverpool," May 22.]

Sir,—The remarks of "Practical" about the joints of the boards showing through the rubber are quite correct, but planing the boards will not obviate this. Six months ago I had a large pitch pine floor (3 in. by 1 in. tongued and grooved boards laid four years ago) thoroughly levelled and cleaned off by a sandpapering machine. Two layers of rubber were laid in rubber cement, and in less than two months every joint was showing through. W. A.

Granolithic.

[Answers to "Student," May 22.]

Sir,—May I draw your attention to what I believe to be an error in the reply under the above heading on page 982 of your last issue, giving the various areas of various thicknesses covered by a yard cube of 1 : 3 cement granolithic material. These should read :—

48 yds. super ¾ in. thick, and *not* 16 yds. super.
36 ,, ,, 1 in. ,, ,, ,, 12 ,, ,,
24 ,, ,, 1½ in. ,, ,, ,, 9 ,, ,,

CHARTERED QUANTITY SURVEYOR.

Sir,—Making no allowance for shrinkages, a yard cube of concrete would lay—

1	yard super	36 in.	thick.
6	yards ,,	6 in.	,,
24	,, ,,	1½ in.	,,
36	,, ,,	1 in.	,,
48	,, ,,	¾ in.	,,

"Practice" starts from a false assumption that a yard cube of ¾ in. down to dust granite chippings plus one-third of a yard cube of cement will form a cubic yard of concrete *in situ*. Even if he uses shakers for his measure boxes he will hardly get this result, and for ordinary practical purposes the allowances for shrinkages will require to be round about 20 per cent. J. R. T.

Sir,—"Practice" states that a yard cube of ¾ in. to fine granite chippings and cement (gauged 3 : 1) will cover an area of 16 yards super ¾ in. thick, 12 yards super 1 in. thick, and 9 yards super 1½ in. thick. There is evidently something radically wrong with "Practice's" calculations or practice, as it is almost a rule amongst the eminent granolithic floor layers that 3 tons (granite chippings are almost invariably ordered by the ton, and not yard cube, which allows for waste in trucking and carting) will cover 100 yards super 1 in. thick. This is equivalent to 30-33 yards to a ton. A yard cube of matrix stated above should cover 32-36 yards super 1 in. thick, not 12 yards super. Q. S.

Sir,—One cubic yard ¾ in. thick will cover approximately 32 yards super (not 16); 1 in. thick, 24 yards super (not 12); 1½ in. thick, 18 yards super (not 9). W. A.

Dancing Floor.

[Answer to "P.," May 29.]

Sir,—If I understand your correspondent aright, he proposes a series of short spans of 4 ft., with 1½ in. joists laid flat between. This would give an irregular and unpleasant "spring" to the floor, and is not to be recommended. Failing a properly constructed spring floor, the next best thing is to lay light joists over as wide a span as possible. For instance, for a span of, say, 20 ft., 11 in. joists would serve for ordinary purposes, but if these were put in at 9 in. a sufficiently serviceable dancing floor would result. PRACTICE.

LAW REPORTS

KING'S BENCH DIVISIONAL COURT.
Before JUSTICES TALBOT and FINLAY.

LIABILITY FOR COLLAPSED BUILDING.

This was an appeal by a firm of estate agents and auctioneers and an architect, who were the defendants in a reference against the decision on May 29, 1930, by Sir Francis Newbolt, K.C., Official Referee, in favour of plaintiffs, Mr. Philip Reginald Webster and Mr. William Weddell (acting as Weddell Bros.), advertisement contractors, Sussex-road, Holloway, N.

Appellants appealed on the ground that there was no evidence upon which the Official Referee could find against them, and that there was an agreement between plaintiffs and defendants, after the collapse, to complete the work by direct labour, and to release defendants from liability.

The claim before the Official Referee was for damages for alleged negligence and breach of duty as architects, and damages in respect to a collapse of part of a roof.

Mr. Justice Talbot gave judgment, and the appeal was dismissed with costs. Mr Justice Finlay agreed.

The case for the appellants was argued by Mr. Van den Berg, and for the respondents by Mr. Schiller, K.C.

OFFICIAL REFEREE'S COURT.
Before SIR WM. HANSELL, K.C.

ARCHITECT'S CLAIM SETTLED.

Beard v. Kay.

After a hearing which ran into several days, parties in this action came to terms.

The plaintiff, Mr. John Stanley Beard, an architect, of Baker-street, W., sought to recover from Mr. John Kay, of Oxford-street, W., fees in connection with the erection of the Grange Cinema, Dagenham, which cost £22,138.

Plaintiff's case was that his charge was 6 per cent. on the cost of the building. His fees amounted to £1,328, and he had received sums on account, leaving a balance of £662.

Defendant, by his defence, pleaded that it was understood that the cinema was not to cost more than £11,000, whereas the lowest tender on the plaintiff's plans was £20,130. The plaintiff thereupon agreed to modify his plans so as to reduce the cost by £4,000. The alterations, however, defendant alleged, resulted in an increase of £2,000. Plaintiff had already been paid £1,066, and defendant pleaded that the plaintiff was not entitled to anything further.

Defendant, by a counterclaim, complained that the plaintiff did not comply with the regulations requiring the tiers, floors and roof to be constructed of fire-resisting material, with the result that proper materials had to be supplied at a cost of £500. Defendant further alleged that plaintiff was responsible for additional cost in regard to certain work to the foundations, and he counter-claimed for £1,500.

Plaintiff gave evidence and said he had been connected with the construction of cinemas and his charge was always 6 per cent. on the total cost, including equipment.

At the conclusion of the plaintiff's case the parties arrived at a settlement disposing of the whole action, all allegations of negligence against the plaintiff being withdrawn. The counter-claim was also withdrawn. The terms were not disclosed.

THE BUILDING TRADE

ESSAYS ON BUILDING PRACTICE.—XXIII

By J. R. TAYLOR.

THE SPECULATIVE BUILDER.

It is perhaps necessary to define exactly the term "speculative" as applied to builder, because in the true meaning of the word all building that is undertaken at a fixed price calculated in advance must be deemed speculative. And where the price is arrived at by persons not properly trained and on insufficient data it may be speculation of a rash and hazardous nature, the risks only being limited by the amount the builder has to lose. But in the more limited sense of the word a speculative builder is one who does not enter into contracts at fixed prices, but erects buildings in the hope that he may be able to sell them at a price based on ascertained cost and bearing a sufficient margin of profit to pay interest on his capital and reward him for his energy and enterprise. The buildings thus erected are sometimes shops, but more frequently they are domestic, and before the War the great majority of cottages and middle-class houses were built by speculative builders who engaged in no other form of building. In somewhat earlier times it was these men who by their rivalry in price-cutting made it necessary to devise the building by-laws, thus adding one more offence to those with which they are sometimes charged. But in my view, just as there are good, bad, and indifferent practitioners in all trades, professions, and crafts, so in speculative building there would be those who gave very good value for money, and some of them built very well. The average quality, however, could not be called high, and some of the worst of it was very bad indeed. Some of the worst of the work was done by men who had little claim to the title of builder, but were adventurous journeymen, who, attracted by specious advertisements, fell victims to financiers who put up money for the development of building land on such terms that a profit was only made possible by scamping the quality of the workmanship and the use of inferior materials. The real root of the trouble lies in the fact that there is nothing about which the average man knows so little as building, and is yet so prone to exercise his own unaided judgment. A man who admits that he knows little of horses (except, perhaps, the merits of racehorses) and will call in a veterinary surgeon to advise him will gaily consent to purchase a house, provided only that he receives an assurance as to the drains. And as long as this is the case it is not surprising that he will be attracted by the biggest rather than the best; either the largest house for his money if he is going to live in it, or the greatest rent return if he is looking for an investment. Owing to the keen competition, he gets value for money, but no more, and the results are not always up to his expectations. But the extraordinary part of the business is that he continues buying and living in ill-built and worse-designed houses in complete and happy ignorance of the facts.

Ground Rents.

Thirty years ago the great majority of middle-class houses put up by the speculative builder in and around the suburbs of London were sold subject to long lease and ground rent. The system adopted in many instances yielded handsome profits where the builders, either by luck or good judgment, selected the right sites. An estate would be laid out, have the sewers and water mains put in and curbs and channels to streets fixed and the roads be partly made, but not finished. A building line would be fixed and plots of land would then be sold to the builder as freehold subject to covenants as to the class of property to be erected and its minimum value. There might also be a provision as to approval of the design, but this as a rule was not of much value, except perhaps to the person signifying his approval. The builder with his own or borrowed capital would erect houses and offer them for sale on ninety-nine year leases. In order to arrive at the purchase price of the lease it was not unusual to put it at the net cost of the land and completed house to the builder, leaving the profit to be obtained to be that for which he could sell the ground rent. The ground rent was often fixed at threequarters per cent. on the sale price of the house; thus a house built to sell at £800 would be subject to a ground rent of £6 per year. In some cases when a district became popular one per cent. was obtainable, and the ground rent would be £8. In regard to these figures it has to be borne in mind that building cost much less at that time than it does now, and for a net outlay of £800 quite a large house could be built of the villa type; large, that is to say, in comparison with anything that could be done for the same amount to-day. The ground rents for this class of property could be sold for twenty-seven or twenty-eight years' purchase, and the gross profit to the builder would therefore range from about £160 to £220. From these profits he might have to pay a commission for the introduction of a purchaser and the interest on any temporary loan for construction; and, in some instances, he undertook to give what he called a free conveyance, which might or might not include the stamp duties.

On terms similar to these, the builder, provided he was fortunate in his choice of locality, often made an extremely good thing of it, and amassed a comfortable fortune in a very few years; but many of them met with a very different fate for want of a little capital of their own and the necessary business experience. These were exploited by people who advertised their willingness to finance builders and did, in fact, put up money, but on such terms that if the venture were a success the builder got very little out of it, and if a failure he was left to face the creditors, his backer ranking as such, but fully secured.

Development Companies.

As long as a builder speculating in this manner confined his operations to the fringes of London he had, if he possessed business ability, a reasonable prospect of success, because, at that time, the rate of growth of the suburbs was extremely rapid. Underground railways were being electrified and extended in all directions, and more rapid transit was bringing parts that had hitherto been considered to be too far away as places of residence for business-men to within a convenient distance. In some districts development was too rapid, and the sales "hung fire"; where this happened the builder frequently could not obtain the money necessary to complete houses that were only partly erected. Many of them "burnt their fingers" very badly and a considerable number were completely ruined.

Over-development was then, and is now, one of the speculative builder's most dangerous risks, and it is not confined to the suburban fringes of large cities. A seaside village or stretch of coastline attains some popularity and, for a time, a few builders will do very well by running up houses for sale, particularly when business is good and the city man is making money. But, as a rule, somebody with big ideas comes along, and companies are formed to build hotels, piers, promenades, boarding-houses and what not, and there is a wild rush by speculators of all sorts, hoping to "skim off the cream." Presently the place is over-built and perhaps vulgarised to such an extent that those who first came there because of its quiet charm retire in disgust, and nearly all the property quickly deteriorates in value. In such cases a slump may set in with great rapidity, and builders are caught with unsold properties for which they cannot obtain a price sufficient to cover their outlay.

Of late years a feature of building carried out by development companies has been the great increase in the number of houses put up on hire-purchase terms. This is not altogether new, as it has been adopted in some cases for as far back as fifty years, and perhaps longer; but in former times the deposit required from would-be purchasers bore a much greater proportion of the total sum involved. To-day, as little as five per cent. is accepted, and the purchase price is then payable in quarterly or monthly instalments, and, occasionally, even weekly payments can be arranged.

Why the Architect Cannot Compete.

There are many reasons why the architect cannot compete in regard to the price at which houses are put up by the speculative builder. Some of them are obvious, but others are not. In a weekly paper there recently appeared an advertisement to the effect that a firm of builders offering houses on a small deposit and weekly terms for balance of purchase price had erected and disposed of considerably over one thousand houses during the full year. The architect inviting several builders to tender could not obtain any estimates subject to payment on such terms as these; but assuming his clients willing to pay in the ordinary manner, he would still be handicapped. In the case of a large number of houses the buying is a very different thing from what it is in the case of one, or even several houses, erected under an architect. The contract for bricks would be in millions, sand and gravel in train loads, roof tiles probably in ship loads. A thousand each of baths, lavatories, sinks, closets and the like make an appeal to the manufacturers asked to offer them that will bring very much lower quotations than anything that can be obtained in the ordinary course, and this applies to every item of material wanted for the work. An order for, say, 7,000 chimney pots is one worth having. Of course, every speculative builder does not put up a thousand houses per annum, but where he builds only twenty or thirty he still has great advantages in buying, and it is quite untrue to say that the architect can counteract this by a more economical distribution of the material at his disposal. Nobody could possibly make a bag of cement go further than the speculative builder.

The greatest disadvantage of the architect is not, however, so much one of cost as that, as a nation, we have little knowledge of architecture and little or no taste. To some limited extent the architect is himself responsible for this when he shows a willingness to follow any new fashion, no matter how weird, asking only that it shall strike a note of novelty. But his real trouble is that his potential client cannot "read" a plan, and knowing, but not confessing, this, prefers to inspect and buy a house ready made. In this he displays the same tendency as that which governs the majority of our everyday transactions. Few of us commission a picture unless it is a portrait, and many of us would buy our clothes ready made did not our figure compel us to seek the tailor's aid.

Selling the Houses.

The capacity of the speculative builder to sell his houses is the only real limit to his output, and it is on this that he has to con-

centrate. The days when he could sell a ground rent for a price to yield him an income, even though he built few houses, have gone, and the margin between cost and sale price is now much less than it was formerly. As against this, the hire-purchase system has made it possible for a great many people to own houses who would find it impossible under ordinary circumstances. Practically all salaried people are possible customers, and in view of this, many modifications have had to be made in the way the business is handled. The builder's agents or salesmen have to be at hand throughout the hours of daylight, or at all events from 9 a.m. onwards, and their busiest time is in the long summer evenings and at the week-ends. These men are keen salesmen who know just how to make the most of any opportunity, and many a youthful couple who have gone only on a tour of inspection with a view to passing away an hour or two on a Saturday afternoon come away with a receipt for their first deposit.

But all sorts of additional devices for effecting a sale are employed. One method is to work in conjunction with furniture dealers and show the house as it will be when furnished. Nearly all houses have a much better appearance when furnished than when empty, and much of the want of finish can be hidden from view. So, too, with labour-saving devices, such as electric irons, kettles, cookers, carpet-sweepers, and other accessories; a plugging-in point is only a plugging-in point in an empty house, but when all the accessories are shown by an astute salesman it becomes something wonderful that only such a go-ahead and semi-philanthropic firm as that which he represents could offer it all at such ridiculously low prices. But extras always have been the mainstay of builders, and though the plug point will be included in the advertised price the accessories will not. The speculative builder was, I believe, the first to discover the selling-point value of a built-in wardrobe, especially if it had a large sheet of silver plate for the door panel; this he did upwards of forty years ago, and it still helps him to sell his houses to-day. He is constantly on the look-out for similar points, especially if they can be used in his advertisement. In all sorts of ways he endeavours to go one better than his rivals, even taking a leaf out of the book of the grocers who give cheap ornaments to purchasers of some brands of tea. One builder I remember gave a six months' season ticket up to town with each house sold. His competitor countered with a free truck-load of coal, although his coal-places held only a few hundredweight, and the surplus had to be dumped in the gardens.

THE FINANCE BILL: TAXATION OF LAND

THE VALUATION.—I.

It is important to note that the present scheme of land taxation, as outlined in the Finance Bill, differs from the scheme of 1909-10, in that there is but one tax to be levied on the "land value" as determined under the Bill, but that one tax is to be levied each year and the valuation of the land is to be made every five years commencing from the first valuation date, which is fixed for August 1, 1931. At first sight this may seem to make for simplicity, but the simplicity will be that of those who accept this legislation without protest and not that of the system. Under the Act of 1910 charges of a capital nature, such as increment value duty and reversion duty, were only levied on occasion, that of sale, death, or the determination of a lease in relation to some capital benefit derived by the owner or his estate. Charges of this character, especially in the case of increment value on sale, could be met out of capital, but the case is very different under the scheme now proposed; the landowner is saddled with an annual charge, capable of being increased annually, which must be met out of income, and the capital value of his property in land is subjected to revaluation every five years, obviously with the intention of securing that will-o'-the-wisp, the increment created by the community, and he may be forced to meet this annual charge out of capital. Clause 8, sub-clause (1) of the Finance Bill, provides that "the land value" to be ascertained is "the amount which the fee simple with vacant possession might have been expected" (on the valuation dates) "to realise upon a sale in the open market" upon certain assumptions which are contained in five paragraphs lettered (*a*) to (*e*). Paragraph (*a*) is divided into two sections, and it has to be assumed that there were not upon or in the unit (i) "Any buildings, erections or works, except roads, and except works executed for agricultural purposes, and except any buildings, erections and works, in so far as they are necessary for the reclamation of land or the protection thereof from flooding or for maintaining the stability of the unit; (ii.) Anything growing on the unit except any heather, gorse, sedge, or other natural growth, and in the case of agricultural land, except also hedges and trees."

It will be seen that this paragraph is obscurely drafted owing to the different interpretation to be put upon the word "except" in the first part as compared with the second portion, but comparing it with the original Bill, which was differently drafted, there is little doubt that its intention is to include in the valuation roads and works for reclamation and retention of the land, although this may appear incredible. Under this Bill "land value" takes the place of what was termed "assessable site value" in the Act of 1910, and it is important here to compare the two measures. Works of reclamation and for the prevention of flooding and necessary for the retention of the land may have been in operation at the valuation date, involving great personal expenditure by the owner and creating the whole value of the land, and it is impossible to see why these should be included in the valuation and the community receive "rent" for them. The same may be true of the roads. On many building estates the owners have either incurred great expense in making the roads or, under compulsion of law, have had to contribute to the expense of making these up. Where land does not abut upon a highway reparable by the inhabitants at large this must almost always have been the case, and it is hard to see why the two classes of properties should be differentiated and why expenditure, either voluntarily incurred by the owners or forced upon them under the Public Health Act, 1875, or the Private Street Works Act, 1892, should be entirely ignored and the community claim the benefit of it.

In the Finance Act of 1910, in arriving at the "assessable site value," care was taken that the community should not derive benefit from expenditure incurred by the landowner; thus, in section 25 it was enacted that the assessable site value was the total value after deducting first the same amount as was to be deducted for the purpose of arriving at full site value from gross value (that was after stripping the land of buildings, trees and other growing things), and then "any part of the total value which was proved to be directly attributable to works executed or expenditure of a capital nature (including any expenses of advertisement) incurred bona-fide by or on behalf of or solely in the interests of any person interested in the land for the purpose of improving the value of the land as building land, or for the purpose of any business, trade or industry other than agriculture." Then, as regards roads, the same section provided that there should be excluded from the assessable site value any part of the total value proved to be directly attributable to the appropriation of any land or to the gift of any land by any person interested in the land for the purpose of streets, roads or paths, and in the case of undeveloped land duty the expenditure made by the owner of land or by his predecessors in title on "roads (including paving, curbing, metalling and other work in connection with roads) or sewers, was to be taken into consideration to the extent that one acre for every £100 expenditure was to be treated as developed provided that 10 years had not elapsed since the date of the expenditure, or that the land had not been allowed to revert to the condition of undeveloped land.

The present Bill, in the first place, includes all roads, however created, whether by direct expenditure on the part of the owner or by contribution from him, in the land value which is the assessable value, and, as the valuation is to be made every five years, may continue to tax owners possibly on an increasing scale, in respect to increment or from an increase in the amount of the tax itself, without the least regard to expenditure made by the owner in creating that land value. The definition of "Road" in the Finance Bill is "'Road' does not in relation to any land unit include any road which the occupier alone is entitled to use, but save as aforesaid includes any carriageway or footway, whether a street, lane, mews, square, court, alley, passage, or of whatsoever other nature and whether a thoroughfare or not."

It is hardly necessary to point out the ill-effects such legislation will have on the development of building estates. The Committee on By-laws relating to Buildings and the Construction of Streets pointed out that it was desirable that the developing owner should put the roads into reasonably good condition to bear traffic before the final stage of taking over by the local authority arrived, and it was even suggested that powers might possibly be given to the local authority to carry this out at the owner's expense. What developing owner will incur heavy expenditure on the roads when he knows that every penny he spends will increase the amount of taxation he will be liable to pay? We think we have said enough to show that the above provisions ignore any expenditure made by the owner in connection with the roads and the above works, and that they must tend to hinder development and land reclamation.

In connection with legislation of this kind, by which it is proposed to impose a tax on the capital value of one form of property, it is surely an unfortunate doctrine to inculcate that the community possess a right to the ownership of the land, as at this stage in our history such a doctrine cannot be substantiated, and it only encourages extreme views. For centuries the land has been the subject of purchase and sale, and the State has recognised this and been a party to it, and all that can be said now is that under certain circumstances the property may be enhanced in value by acts performed in the interests of the community, but even that is difficult of ascertainment and adjustment; for instance, a road providing access may enhance the value of property if provided out of the rates or by grant, but, on the other hand, a trunk road which has the character of causing nuisance by vibration and noise depreciates property adjoining most severely. In other words, the community makes and mars. Further than this, as a rule both increment and decrement is a gradual process, and owing to frequent sales the burden or benefit is transferred by degrees, but even where this is not the case the owner of land at the valuation date may not be the person who has made the profit or loss, he may have paid the whole increment or enhanced value to a person who does not at that time

own an acre of land and who escapes the proposed taxation altogether.

One thing, however, is certain that no form of taxation should penalise the owner for expenditure on improvements and give the community a charge of an annual nature on such improvements, and such a course in the long run must prove to the detriment of the community as well as to private enterprise.

NEW BUILDINGS IN LONDON

Bermondsey.—FLATS.—The B.C. recommend that the lay-out and sketch plans for 22 flats and seven shops in Blocks 1, 2 and 3 be approved, and that the General Manager's estimate for flats be approved.

Brixton-road.—ADDITIONS.—Messrs. Griggs & Son, Ltd., 100, Victoria-street, S.W.1, are the builders for additions at the rear of 400-402, Brixton-road, for the South Metropolitan Gas Co.

Brixton-road. — BUILDING. — No building contract has yet been let in connection with the erection of a building at Nos. 233-239, Brixton-road, abutting upon Hilda-road. The architects are Messrs. A. W. Cooksey & Partners, 6, Adam-street, W.C.2.

Brixton-road. — REBUILDING. — Mr. Joseph Hill, F.R.I.B.A., 34, Gordon-square, W.C.1, is the architect for the rebuilding of the "Prince of Wales" public-house, at the corner of Brixton-road and Coldharbour-lane. No building contracts have yet been placed.

Buckingham-gate. — RESTORATION.—Messrs. Walter Lilly & Co., of Orchard Works, Westminster, S.W.1, have secured the contract for restoration and external painting works to the whole of Wellington House, Buckingham-gate, S.W.1.

Hanwell.—BANK.—Alterations and extensions are being made to Barclays Bank, 153/155, Uxbridge-road, W., by Messrs. A. Roberts & Co., Ltd., building contractors, Kensington, W.8, to the plans prepared by Mr. R. A. Hinds, F.R.I.B.A., architect, 8, Duke-street, Adelphi, W.C. The constructional steelwork is being designed and supplied by Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, S.W.1.

Lambeth.—BUILDING.—Mr. Stanley Hunt, A.R.I.B.A., 101, Finsbury-pavement, E.C.2, is the architect for new building at 412-416, Coldharbour-lane.

Lambeth.—OFFICES.—New offices are to be built at 121a, 123 and 125, Dorset-road. The architects are Messrs. North, Robin & Wilsdon, Townsend House, Greycoat-place, S.W.1, and the builders are the Pitcher Construction, 57, Ashburton-grove, N.7.

North Kensington. — STORES. — Messrs. Marks & Spencer, Ltd., 72, Baker-street, W.1, are having new premises erected in Portobello-road, North Kensington. The architects are Messrs. W. A. Lewis & Partners, 11, Finsbury-square, E.C.2, and the builders are Messrs. Bovis (1928), Ltd., 41/44, Upper Berkeley-street, W.1.

Paddington.—STORES.—The B.C. are to acquire land adjoining 1, Westbourne-gardens, for the erection of buildings, boundary walls, for baths and washhouses purposes.

Park Royal.—FACTORY.—Messrs. Hoover, the vacuum-cleaner makers, are to erect a new factory, with head offices, at Western-avenue, Park Royal, on a site of nine acres. The cost is estimated at £45,000. The architects are Messrs. Wallis, Gilbert & Partners, 29, Roland-gardens, South Kensington, S.W.7. No contract has been placed, the quantities not yet being complete.

Poplar. — FLATS. — The Borough Engineer and Surveyor is to erect a block of flats upon a site on the south side of Poplar High-street.

Poplar. — STORES. — Messrs. R. Gregory, Ltd., of 16, Fuller-street, are to erect a dry store at the rear of 276, Roman-road, abutting on Vernon-road.

Richmond. — GARAGE. — H.M.O.W. are inviting tenders for the erection of sheds and garage at the Park Golf Course, Richmond.

Southwark.—EXTENSION.—At a cost of £40,000, Southwark Borough Council has begun the extension of its electric light station in Walworth.

Tottenham. — ADDITIONS. — Messrs. G. Groves & Son, 6, Bruce-grove, Tottenham, N.17, are the builders for additions to the chapels at Tottenham cemetery for the Tottenham and Wood Green Burial Board. The architect is Mr. J. C. S. Mummery, A.R.I.B.A., 107, Great Russell-street, W.C.1.

Trafalgar-square.—REBUILDING. — For the rebuilding of the premises of the Union of South Africa, Messrs. Holland & Hannen and Cubitts, Ltd., 1, Queen Anne's-gate, S.W.1, have secured the contract for the erection of the whole building. Sir Herbert Baker, A.R.A., F.R.I.B.A., 14, Barton-street, S.W.1, is the architect.

Twickenham.—ALTERATIONS.—The tender of Mr. J. Markham has been accepted by the T.C. for alterations and additions to the London-road depot.

West Ham.—ACCOMMODATION.—The City Corporation recommend £2,240 for the erection of new lavatory accommodation in West Ham-park.

Westbourne-grove. — PREMISES. — Western Construction Co., Ltd, Artillery House, S.W.1, have secured the contract for the erection of new premises at Nos. 12a, 14 and 16, Westbourne-grove, and Hatherley-grove and Westbourne-grove-terrace, W.2, for the Westbourne Park Permanent Building Society, Ltd. Messrs. H. Shepherd and Thomerson, F. & A.R.I.B.A., 80, Queen's-road, Bayswater, W.2, architects.

Wood Green.—RENOVATIONS.—A sum of £192,500 is to be spent on thoroughly renovating the Alexandra Palace buildings and grounds and bringing them up to date.

Rye Lifeboat Memorial.

The design and work of the Rye Harbour lifeboat disaster memorial has been entrusted to Mr. James Wedgwood, of Radnor Studios, Radnor-street, Chelsea. A faculty has been obtained, and it is hoped that it will prove possible to finish the work before November 15 next, the third anniversary of the disaster.

Incorporated Church Building Society.

At a meeting of the Incorporated Church Building Society held at 7, Queen Anne's-gate, Westminster, recently, Mr. E. G. Antrobus in the chair, grants were made towards building new churches at :—Becontree, S. Elizabeth, £400; Blackley, S. Paul, £300; Mitcham, S. Olave, £140.

Towards reseating or repairing the churches at :—Barham, S. John-the-Baptist, £25; Brent Eleigh, S. Mary, £20; Cadeleigh, S. Bartholomew, £30; Cold Ash, S. Mark, £20; Drypool, S. Andrew, £135; Fifield Bavant, S. Martin, £30; Hull, S. Mark, £20; Margaretting, S. Margaret, £25; Seckington, All Saints, £50; Stamford, All Saints, £60; Walberswick, S. Andrew, £30; Weymouth, Holy Trinity, £40.

The following grants were also made from the Mission Buildings Fund :—Knowle, S. Martin, £50; Stockton-on-Tees, S. Crispin, £30; Woolbrook (Sidmouth), £100.

Grants were paid for works completed at : Banwell, S. Andrew, £50; Beckenham, S. Michael, £50; Blackhall, S. Andrew, £200; Broadhembury, S. Andrew, £60; Gresford, All Saints, £100; Holloway, West, S. Saviour, £20; Lullingstone, S. Botolph, £30; Malling, West, S. Mary, £40; Marchington Woodlands, S. Mary, £15; Plumstead, S. Francis, £15; Rodington, S. George, £25; Stifford Mission Church, £25; Stockwell, S. Michael, £25; Sunderland, S. Mary Magdalene, £250; Tooting, S. Augustine, £250.

In addition to the above, £614 was paid towards the repair of 33 churches from Trust Funds held by the Society.

NEW CINEMAS

Bromley.—As announced in our issue for June 7, 1929, Mr. F. C. Mitchell, L.R.I.B.A., 80, George-street, Portman-square, London, W.1, is preparing plans for a new cinema in High-street, Bromley, to seat 3,000, for Living Picture Palaces, Ltd., 36-37, Queen-street, E.C.4.

Carlisle.—Magistrates have approved plans for erection of a new cinema in Warwick-road for Messrs. Sidney Bacon's Pictures, Ltd. The architects are Messrs. P. L. Browne & Son, F. & L.R.I.B.A., Pearl-buildings, Northumberland-street, Newcastle-on-Tyne.

Christchurch.—Work on the proposed new Capitol Cinema, Christchurch, Hants, will shortly be commenced. The site is at 9-10, High-street, and the cinema, the Capitol, is for Mr. T. J. Rowley, of 120, Christchurch-road, Bournemouth, who will do the builder's work.

Cork (Ireland).— It is learned that Messrs. Moore and Crabtree, Queensgate Chambers, Bradford, Yorks, are the architects for a cinema to be built in St. Patrick-street, Cork.

Glasgow.—A contract for the reconstruction of the Palace Theatre (architect, Mr. Charles McNair, 112, Bath-street, Glasgow) has gone to Messrs. R. Rodgerson and Co., South-street, Scotstoun, Glasgow.

Glasgow.—Associated British Cinemas Heddon House, Regent Street, W.1, who owned the Camphill, have been in communication with the Education Committee of Glasgow Corporation with a view to purchasing Crossmyloof School in Stevenson Drive to form part of a great new super on the site of the former Camphill. The staff architect is Mr. W. R. Glen.

Glasgow.—A contract for the reconstruction of the B.B. Cinema, Victoria-road, has been placed with Messrs. John Livingstone & Sons (Glasgow), Ltd., of 108, West Regent-street. Work is now proceeding. The cinema, which belongs to the Gaumont-British Picture Corporation, Ltd., will eventually seat 2,750 persons. Mr. Jas. L. Ross, I.A. (Messrs. Malcolm Ross & Sons), 50, Main-street, Wishaw, is the architect.

Golcar.—Messrs. Stocks, Sykes and Hickson, L.R.I.B.A., 4, St. Peter's-street, Huddersfield, are preparing plans for a large cinema on a site in James-street.

Hornchurch.—The Building Committee of the U.D.C. reported having received a letter from Mr. D. J. James, Wharf-house, Malt-street, S.E., asking if there would be any objection to the erection of a cinema on either of two sites on the Grey Towers Estate. The Committee recommended that the Clerk reply to the effect that no objection would be raised. We understand that the scheme is in its very early stages.

Machynlleth.—Mr. W. Williams, of the "Skinners Arms," New-street, has had plans prepared for the erection of a cinema.

Paisley.—The architects for reconstruction and additions at the Astoria Picture House, Lawn-street, are Messrs. J. McKissack & Son, 68, West Regent-street, Glasgow.

Salford.—A special committee of the Salford Corporation and representatives of a London syndicate will, it is understood, meet shortly with a view to resuming negotiations for the development of the old cattle-market site in Cross-lane on the basis of new proposals submitted by the company. These embrace a cinema, an exhibition hall, a stadium with seating accommodation for 35,000 people, and places of amusement. The whole scheme is estimated to cost about £200,000.

Welling, Kent.—Mr. William Evans, F.R.I.B.A., Western Chambers, South-street, Romford, has been appointed architect for a new cinema to be erected at Welling, Kent, for the North Kent Cinemas, Ltd. This company has no connection with the Plaza Cinema, Romford, for which Mr. Evans also acted as architect. The proposed cinema at Welling is to accommodate 2,000 persons.

Wednesbury. — Messrs. Satchwell and Roberts, 6, New-street, Birmingham, are preparing plans for a reconstruction scheme for the directors of the Rialto Theatre.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1931.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Accrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Aldershot	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Alfreton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Alnwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Altrincham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashford (Kent)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Ashington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ashton-under-Lyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Aylsham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Barry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Berwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bexhill	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Birkenhead	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Birmingham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bishop Auckland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blackburn	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackpool	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bolton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bradford-on-Avon	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bridlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromsgrove	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bromyard	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Bungay	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Burnley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury St. Edmunds	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Buxton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Cardiff	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Carlisle	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chesterfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chorley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cirencester	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½	
Clacton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cranbrook	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cromer	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Darlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Deal	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Denbigh	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Derby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Devizes	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Dewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Doncaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dorking	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
E.Glam.(Mon.Val.)	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ely	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Glossop	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Godalming	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Goole	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Gosport	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grantham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gt. Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Grimsby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Guildford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Halifax	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Harpenden	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Harrogate	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hartlepools	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hatfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hednesford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hereford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Herne Bay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Huddersfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hull	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hunstanton	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huntingdon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Isle of Wight	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Keighley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Kettering	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kidderminster	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kings Lynn	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Sp	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leicester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leighton Buzzard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Littlehampton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Liverpool	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Llandudno	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Llanelly	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
London—								
12 m. radius	1/8	1/8	1/8	1/8*	1/8	1/8	1/7	1/3
12-15 m. radius	1/7½	1/7½	1/7½	1/7½*	1/7½	1/7½	1/6½	1/2½
Loughborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lowestoft	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Macclesfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Mansfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harborough	1 5	1/5	1/5	1/5	1/5	1/5	1/5	1/0
Matlock	1 5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Melton Constable	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Melton Mowbray	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Merthyr Tydfil	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Middlesbrough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newcastle-on-Tyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newcastle-u-Lyme	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
New Forest	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newport, Mon.	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Northampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Norwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Nottingham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nuneaton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Peterborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Redditch	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Reigate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Retford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Ripon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Saffron Walden	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sawbridgeworth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Saxmundham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Scarborough	1/6	1/6	1/6	1/6	1/6	1 6	1/6	1/1½
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sittingbourne	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
South Shields	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stockton-on-Tees	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stoke-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourbridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stowmarket	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Stratford-on-Avon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Swaffham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Swansea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Tamworth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Thetford	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Torquay	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Walsden	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warminster	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Warrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wells (Norfolk)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Welwyn Gar. City	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
West Bromwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Weston-sup-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Whitby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wigan	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Winchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wisbech	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wolverhampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Woodbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worksop	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worthing	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wrexham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wycombe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wymondham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st February, 1931, is 1/10½ per hour.

For Building Trade wages in Scotland, see page 1037.

TEMPERATURE OF A FACTORY

A prosecution relating to the heating of a Portsmouth factory was heard at the City Police Court recently, when Messrs. Bailey and Whites, Ltd., timber merchants, of Portsmouth, were summoned for failing to take adequate measures for securing and maintaining a reasonable temperature in a room in which certain persons were employed. The prosecution was conducted by Miss Silcock, Superintending Inspector of Factories, and the company was represented by Mr. Morris Diamond, of Manchester, instructed by Messrs. Glanville.

Mr. C. N. Pye, District Inspector of Factories, Portsmouth, gave evidence of a visit to the factory last January. He said when he went there about ten o'clock in the morning he found about 130 men employed in the building. On one side was a small door, and on the opposite side of the building were four large openings, about 20 ft. wide. There was no heating apparatus in the building, and the temperature varied from 36 degrees to 39 degrees, the outside temperature being 35 degrees. No steps were taken to secure a reasonable temperature.

In cross-examination the witness said he did not know work had been carried on in the building for 27 years. No complaint was made by any of the workmen.

Two joiner machinists employed at the factory gave evidence of the inspector's visit. One of them had been employed there for ten years and the other twenty years, and both stated that they had never had any reason to complain of the heating conditions, and were always warm at their work.

Expert evidence having been given on behalf of the company, the magistrates came to the decision that the temperature around the sawing and planing machines was a reasonable one, taking into consideration the nature of the work executed, but they held that around the joinery department exclusively it was not a reasonable temperature. Instead of inflicting a penalty they intended making an order whereby certain means would be adopted for the purpose of bringing the factory into conformity with Section VI of the Factory Act so far as the joinery department was concerned. That could be done by making a separate department for joinery work. They also suggested that doors be fixed to the large openings in the wall and closed at night.

TRADE CATALOGUES

The excellent results of so much permanent decorative work being done to-day are reflected in the finely produced catalogue issued by Messrs. Diespeker and Co., Ltd. The illustrations include some admirably executed plates in colour, but the "bonne bouche" of the illustrations for the architect would probably be the baldachino at Westminster Cathedral, which is a fine example of the work of the late J. F. Bentley. The mosaic and terrazzo by this firm included Venetian glass mosaic, Vitreous glass mosaic, Florentine mosaic, Ceramic mosaic, Alundum mosaic, Roman cube marble mosaic, Terrazzo, etc. The variety of effects obtained are admirable. One panel of Florentine mosaic is shown which is made up of 9,000 pieces. The success of Terrazzo has led to its manufacture in pre-cast units, which have many advantages over the older method of executing the work *in situ*. The adaptability of glass mosaic to all positions, even externally, has come to be well recognised. The depredations caused so generally in other forms of decoration used externally are avoided by the glass mosaic and we find Gold, Silver and Ruby glass mosaic, which is a sandwich of gold, silver or ruby leaf between two layers of glass fused together. The catalogue before us shows the wide extent of variety in which Messrs. Diespeker's work is to be found.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

JUNE 8.

Ballinasloe.—Installation.—Electrical installation at Mental Hospital, for Committee. J. P. Tierney & Co., consulting engineers, 44, Kildare-st., Dublin. Dep. £3 3s.

Bargoed.—Painting.—Also redecorating Workmen's Institute, for Committee. W. Williams, secretary.

Barnsley.—School.—Senior mixed school, Honeywell-lane, for C.B. Dyson, Cawthorne & Coles, architects, 10, Regent-st.

Coventry.—Painting.—Also decorating at various schools, for E.C. Education Department.

Coventry.—Lighting.—Installation of electric lighting at open-air school, Corley, for E.C. Education Department.

Crowmarsh.—Houses.—6 at Warborough, for R.D.C. J. E. Thorpe, L.R.I.B.A., 66, St. Giles', Oxford. Dep. £1 1s.

Croydon.—Houses.—42 at Downsview-rd. estate, for C.B. B.E. Dep. £3 3s.

Croydon.—Houses.—134 at Waddon housing estate, for C.B. B.E. Dep. £3 3s.

Dukinfield.—Houses.—92 non-parlour type, with two and three bedrooms respectively, on Astley Mill site, for T.C. B.S. Dep. £2 2s.

Glasgow.—Installations.—Electric lighting installations at rehousing—5 sites, and Polmadie housing scheme, for Corporation. General Manager, Electricity Department, 4, West Regent-st., C.2.

Hemel Hempstead.—Redecoration.—Also repairs to Council property, for R.D.C. T. H. Lightbody, S., Broadway Offices.

Hemsworth.—Building.—Caretaker's house, green house and cold frames, band stand, and conveniences, at public park, for U.D.C. A. Wright, clerk. Dep. £1

Hunton Bridge (near Watford).—Houses.—Stimpson, Lock & Vince, 173a, High-st., Watford. Dep. £1 1s.

Kiveton Park.—Conversion.—Of existing system of sanitation into water carriage system at 228 houses in parish of Wales, for R.D.C. S.

Leyton.—Heating Installation.—At Mayville-rd. school. John H. Jacomes, Architect, 62, West Ham-lane, Stratford, E.15. Dep. £1.

Manchester.—School.—Erection of Collyhurst municipal school, for T.C. F. E. Warbreck Howell, T.C. Dep. £2 2s.

Manchester.—School.—Nursery school and housewifery centre, Palmerston-st., Ancoats, for E.C. F. E. Warbreck Howell, T.C. Dep. £2 2s.

Manchester.—School.—Erection of Old Moat municipal senior school, Withington, for E.C. F. E. Warbreck Howell, T.C. Dep. £2 2s.

Manchester.—Extensions.—For new junior mixed school and extensions to senior mixed municipal school, New Moston, for E.C. F. E. Warbreck Howell, T.C. Dep. £2 2s.

Manchester.—Additions.—Also alterations to municipal school canteen, Mill-st., Ancoats, for E.C. F. E. Warbreck Howell, T.C.

Mitford and Launditch.—Cottages.—Four cottages, Litcham, and 4 cottages, Yaxham, for R.D.C. W. J. Barton, clerk, The Guildhall, East Dereham. Dep. £1.

Moreton-in-Marsh.—Houses.—For the Campden R.D.C., Clerk, Council Offices. Dep. £1 1s.

Newtownbutler.—Station.—Customs and Excise examination station, for Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-sq. West, Belfast.

Norwich.—Sheds.—31 sheds for Thorpe Allotments, for T.C. A. E. Sandys-Winsch, Parks Superintendent, 45, St. Giles'-st. Dep. £1.

Pontygwaith.—Stores.—For directors of Fern Vale Brewery Co., Ltd. R. S. Griffiths & Partners, architects and surveyors, Tonypandy.

Prestatyn.—Fencing.—71 yds. wrought iron fencing and gate, for U.D.C. S. Trevor Roberts, E. and S.

Preston.—Pavilion.—At Moor Park, for C.B. W. Platt, B.E. and S., Birley-st.

Quarry Bank.—Houses.—94, on Saltwells Wood site, off Coppice-lane, for U.D.C. A. Homfray, clerk. Dep. £2 2s.

***Quarry Bank.**—School.—Public elementary day school to accommodate 280 senior girls in Coppice-lane, for Staffordshire E.C. F. A. Hughes, Director of Education, County Education Offices, Stafford. Dep. £4 4s.

Ruislip-Northwood.—Alterations.—Also certain internal decorations at Council Offices, Northwood, for U.D.C. H. R. Metcalfe, E. and S.

Sheffield.—Steelwork.—Structural steelwork at High Storrs secondary schools, for E.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £1.

Silsden.—Lighting.—Installation of electric lighting at Silsden Hothfield-st. Council school, for West Riding C.C. C. E. Bailey, divisional clerk, Education Office, Skipton.

Skelmorsdale.—Cottages.—Eight semi-detached, near railway bridge, Liverpool-rd., for U.D.C. E. Huntington, S. Dep. £2 2s.

West Bromwich.—Houses.—240 on various sites, for T.C. A. B. Greatorex, B.S.

West Suffolk.—Painting.—Certain secondary schools, for E.C. A. Ainsworth Hunt, County Architect, 31a, Abbeygate-st., Bury St. Edmunds.

Whitehall, S.W.—Internal and External Painting.—At War Office, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £2 2s.

JUNE 9.

Ayr.—Houses.—320, for C.C. W. Reid, County Architect, 14, Wellington-sq., Ayr.

Doncaster.—Painting.—At West Riding police station and petty sessions room, for West Riding E.C. West Riding Architect, County Hall, Wakefield.

Glasgow.—Extension.—Of Parkhead bus garage, for Corporation. General Manager, 46, Bath-st.

Maidstone.—Wiring.—Electric wiring of Council houses at Sandy Cross, Heathfield, for R.D.C. W. O. Humphery, E. and S.

(a) Halesowen, (b) Stubbford.—Telephone Exchanges.—For H.M.O.W.—Contracts Branch, King Charles-st., London, S.W.1. Dep. £2 2s.

Leytonstone.—Enlargement.—To County High School for Girls.—County Architect, County Hall, Chelmsford. Dep. £2 2s. to County Accountant.

London.—Additions.—At maternity home, 73b, Fulham rd., for Fulham B.C. B.E. and S.

London.—Painting.—At maternity and child welfare clinics, 170, Wandsworth Bridge-rd. and 90-92, Greyhound-rd., for Fulham B.C. B.S.

Nairn.—Block.—Maternity block at Town and County Hospital, for Committee. G. Bennett Mitchell & Son, architects, 1, West Craibstone-st., Bon-Accord-sq., Aberdeen.

Near Dunstable.—Lodge.—Porter's lodge and garage in grounds of the hospital at Kensworth-lane, for Dunstable and District Hospital Joint Committee. J. H. Hoare, clerk, 11, West-st., Dunstable. Dep. £2 2s.

Salford.—Repainting.—Also decorating at Nab Top Sanatorium, Marple, for T.C. City E.

Sheffield.—Painting.—At training college for teachers, college of arts and crafts, secondary schools, and other higher education buildings, for E.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £1.

Sheffield.—Chapel.—At Abbey-lane cemetery, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

Sherborne.—Housing.—Two semi-detached cottages in Lenthay-rd., Sherborne, for U.D.C. S. Dep. £2 2s.

West Riding.—Holdings.—3 new cow houses on Castley estate, nr. Pool, for C.C. County Land Agent, County Hall, Wakefield. Dep. £1.

Wicklow.—Houses.—10 four-room and 6 three-room houses at Dunbur-rd. and laying a 3 in. water main and sewerage main in connection therewith, for U.D.C. H. J. MacPhail, T.C. Dep. £3 3s.

JUNE 10.

Aberdeen.—Walls.—Boundary walls, levelling and laying-out ground in connection with burial ground at Tarves, for C.C. E. L. Williamson, architect, 154, Union-st., Aberdeen.

Braintree.—Fencing.—Close-boarded fence at Infectious Diseases Hospital, Cressing-rd., for Joint Hospital Board. S. W. Brown, Clerk to Board.

Docking.—Houses.—12 at Burnham Market, for R.D.C. H. East, Housing Architect. Dep. £1 1s.

Glendale.—Houses.—12 houses at Wooler, for R.D.C. J. Wightman Dongins, 27, Bondgate Without, Alnwick.

Jarrow.—Post Office.—Erection of for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Nottingham.—Painting.—Cleaning and painting various schools, also limewashing school out offices in various districts, for E.C. A. H. Whipple, Director of Education, Education Offices, South Parade. Dep. £1 each.

Old Trafford.—New Council Offices.—For the Stretford U.D.C. Bradshaw Gass & Hope, 19, Silverwell-st., Bolton. Dep. £5 5s.

Stoke-on-Trent.—Repairs.—To houses in Hanley and Smallthorne, for T.C. E. B. Sharpley, T.C.

***Twickenham.**—New Schools.—For the Corporation. Lenthart & Granger, architects, 7, John-st., Adelphi, W.C.2. Dep. £3 3s.

***Wyken, near Coventry.**—School.—For the Warwick C.C. County Architect, 27, Binswood-av., Leamington Spa. Dep. £2 2s.

JUNE 11.

Bootle.—Painting.—Exterior painting of school medical offices, Balliol-rd., and limewashing and tarring conveniences at various schools, for C.B. B.E.

Bootle.—Paving.—New concrete paving to girls' and infants' playground, Bedford-rd. Council school; rebuilding playground wall, Gray-st. Council school; forming new doorway opening, Hawthorne-rd. Council school, and remodelling conveniences, Bedford-rd. Council school, for C.B. B.E. and S.

Devon.—Renovations, etc.—To various schools, for C.C. County Architect, 97, Heavitree-rd., Exeter.

Glasgow.—Houses.—115 on Sinclair-drive housing scheme, for T.C. D. Stenhouse, T.C.

Glasgow.—Installation.—Of electric lighting in Springfield-rd. advanced central school, Springfield-rd., for Corporation. D. Stenhouse, T.C. Dep. £1 1s.

Glasgow.—Painting.—Various schools, for Corporation. D. Stenhouse, T.C.

Harrow-on-the-Hill.—Painting.—Also decorating Council offices and buildings, High-st., for U.D.C. J. Percy Bennetts, E. and S.

London.—Painting.—Painting lighthouses around coasts of England and Wales, for Trinity House. Secretary, Trinity House, Tower-hill, London, E.C.3.

West Ham.—Foundations.—Demolition of buildings, clearing site, excavation and concrete foundations for proposed public baths, Romford-rd., Forest Gate, for C.B. B.S. Dep. £1.

York.—Extension.—Of Post Office, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JUNE 12.

Alton.—Demolition.—Also removal of old timber wards, for Lord Mayor Treloar Cripples' Hospital. H. B. Harper, secretary, 25, Ely-pl., London, E.C.1.

Bingley.—Renovations.—At training college, for West Riding C.C. Education Officer, County Hall, Wakefield.

Chesterfield. — Alterations. — And additions to Hipper-st. Council schools, for T.C. Wilcockson & Cutts, architects, 12, Saltergate. Dep. £2 2s.

Corris. — Alterations. — To Braich Goch Arms, Corris, for David Roberts & Sons, Ltd. G. T. Bassett, A.R.I.B.A., architect and surveyor, Aberystwyth.

Derbyshire.—School.—Council school at Borrowash for 250 children, for E.C. George H. Widdows, F.R.I.B.A., County Architect, St. Mary's Gate, Derby. Dep. £1 1s.

Dover.—Painting.—External, and repairs to about 167 houses, for T.C. W. B. Smith, B.E. and S.

London.—Wall.—Gravel roads and paths at Gunnersbury Cemetery and for a dwarf concrete wall, for Kensington B.C. B.E. and S., Town Hall, Kensington, W.8.

Luton.—Renovations.—To several schools, for E.C. B.E., Upper George-st.

Norton. — Houses. — 20 non-parlour type in parishes, for R.D.C. W. Martin Jackson, architect, Snydale-rd., Normanton. Dep. £2 2s.

JUNE 13.

Armagh.—Extension.—At Lurgan Model school, for County E.C. J. St. J. Phillips, B.E., A.R.I.B.A., architect, 16, Donegall-sq. South, Belfast. Dep. £3 3s.

Brampton Bierlow.—School.—Infants' school, for West Riding E.C. Education Officer, County Hall, Wakefield.

***Brighton.**—Stabling.—Erection of, for the Lessees of the Brighton Racecourse. Town Clerk, Town Hall. Dep. £2 2s.

Bristol.—Painting.—Internal painting, colouring, etc., of certain schools, for T.C. W. Ludford Freeman, Director of Education, Guild Hall. Dep. £1 1s.

Douglas.—Mortuary.—Public mortuary in Lake-rd., for T.C. H. A. Bridge, B.S.

***Epping.**—Houses.—For the U.D.C. Clerk of the Council. Dep. £3 3s.

Fraserburgh.—Painting.—Also decorating of Mid-st. Congregational Church. John Duthie, Silverdale, King Edward-st.

Hoyland Nether.—School.—Infants' school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Liverpool.—Painting.—Interior of wards, etc., at Alder Hey hospital, Knotty Ash, for Corporation. Land Steward and Surveyor.

Mutford and Lothingland.—Houses.—12 houses, for R.D.C. H. Blewitt, S. Dep. £1 1s.

Shaftesbury.—Houses.—Six pairs of non-parlour, at Shaftesbury-rd., Gillingham, for R.D.C. W. J. M. Morrish, F.R.I.B.A., Gillingham, Dorset.

Shaftesbury.—Housing.—Four pairs of non-parlour houses at Shaftesbury-rd., Gillingham, for R.D.C. W. H. C. Walters, architect, 40, Hendford-hill, Yeovil.

JUNE 15.

Altrincham. — Conveniences. — In basement of Market Hall, for U.D.C. H. E. Brown.

Blackpool.—Extension.—To Layton school, Lynwood-av., for C.B. F. Wood, B.E. and S.

Braintree.—Painting.—External of 117 houses on Nos. 2 and 3 sites, Cressing-rd., for U.D.C. D. G. Armstrong, architect, 57, High-st., Braintree.

Bristol.—School.—Builder's and Plumber's work connected with Council school at Bedminster Down, for T.C. Maynard, Froud & Stevens, architects, St. Stephen's-chambs., Baldwin-st. Dep. £2 2s.

Cashel.—Improvements.—At Country Home, for Tipperary S.R. County Board of Health and Public Assistance. E. Beary, secretary, Secretary's Office, Boardroom, District Hospital, Clonmel. Dep. £5 5s.

Cirencester.—Houses.—For U.D.C. Wentworth Jones, Council-chambs. Dep. £2 2s.

Coseley.—Installation.—Of electric lighting in five schools, for U.D.C. Bostock & Hargrove, Ltd., consulting engineers, Midland-chams., Princess-st., Wolverhampton. Dep. £2 2s.

***Enfield.**—Central Heating.—(a) Chesterfield-rd. junior school, (b) Bush Hill Park senior girls' school, for the Education Committee. Director of Education, Gentleman's-row.

Knowstone.—Repairing.—The church tower. Vicar, Vicarage, Knowstone, Barnstaple.

London.—Lighting.—Wiring and fittings for rewiring for electric lighting of ward blocks, "A" and "B" at Eastern Hospital, Homerton-grove, E.9, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

Newark.—Conversion.—Of existing buildings, Appletongate, Newark, into additional classrooms and other new works in connection therewith, for managers of the Newark Parish Church (Mount) Schools. Sheppard & Lockton, architects, 24, Castlegate. Dep. £2 2s.

Thingoe.—Cottages.—3, at Whepstead, for R.D.C. Housing Surveyor, County-chams., Hatter-st., Bury St. Edmunds. Dep. £2 2s.

West Bromwich.—Heating.—Rearranging heating of Town Hall and ventilation of Council chamber. &c., for C.B. A. D. Greatorex, B.E. and S.

West Suffolk.—Painting.—Also small repairs to certain Council schools, for E.C. A. Ainsworth Hunt, County Architect, 51a, Abbeygate-st., Bury St. Edmunds.

York.—Houses.—160 2- and 3-bedroom scullery type houses, 8 4-bedroom scullery type houses, and 16 flats on Heworth Grange estate, for T.C. F. W. Spurr, City E. Dep. £2 2s.

JUNE 16.

East Ham.—Repairs.—Also painting, etc., of schools, for C.B. B.E. Dep. 10s.

Gibbett Hill, Coventry.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Leeds.—Painting.—Also cleaning of schools during midsummer vacation, for E.C. James Graham, Director of Education, Education Offices.

Sheffield.—Houses.—448 non-parlour type, on Wybourn estate (Building scheme No. 8), for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

Stonecross, West Bromwich.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Thornton Heath.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Tottenham.—Tower.—Fire brigade drill tower and hose hoist at Central fire station, The Green, Tottenham, N.15, for U.D.C. E. Townson, clerk.

Truro.—Premises.—Pulling down 4 to 13, Charles-st., and erecting new premises on site, for T.C. F. A. Barnes, City S. Dep. £1.

Wallasey.—Pavilion.—Bowls pavilion in Central-pk., for C.B. B.E. and S. Dep. £1 1s.

JUNE 17.

Birkenhead.—Garage.—Bus garage at existing tramway depot, New Chester-rd., New Ferry, for C.B. R. W. Johnston, B.E. and S. Dep. £2 2s.

Bootle.—Houses.—136 houses in terraces and pairs, west of Fernhill-rd., for C.B. B.E. and S. Dep. £2 2s.

Cleveleys, Blackpool. — Postmen's Office. — For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Kingston-upon-Hull.—Painting.—Painting of 4 river bridges and 2 railway bridges, for T.C. H. Hamer, City E.

Malling.—Cottages.—11 pairs of cottages at Constitution-hill, Snodland, and 13 pairs of cottages at New-rd., Ditton, for R.D.C. S. L. Bundy, Building Surveyor, High-st., West Malling. Dep. £1 1s.

Richmond, Surrey. — Sheds and Garage. — For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Smallburgh.—Painting.—External painting of Council houses situate in following parishes: Ashmanhaugh, 2; Bacton, 4; Edingthorpe, 4; Horning, 4; Hoveton St. John, 6; Stalham, 4, for R.D.C. A. Peploe, clerk, 25, Grammar School-rd., North Walsham.

Trowbridge.—Repairs.—To various schools, for Wilts C.C. County Architect.

JUNE 18.

***Brighton.**—Houses.—Erection of 110 houses, for the Corporation. Town Clerk, Town Hall. Dep. £2 2s.

Lisburn.—Cinema.—Picture-house at Market-sq., Lisburn, Co. Antrim, for Lisburn Electric Palace, Ltd. R. S. Hill, C.E., architect, 44, Wellington-place, Belfast. Dep. £2 2s.

Taunton.—Shed.—New goods shed and offices, for G.W.R. E., Paddington Station, W.2. Dep. £2 2s.

Walkden, Manchester.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Wrockwardine Wood, nr. Oakengates.—Elementary School.—W. H. Pendlebury, Secretary for Education, County-bldgs., Shrewsbury. Dep. £2 2s.

JUNE 19.

Bristol. — Houses. — 36 at Plummers-hill, St. George, and 32 houses at Whitefield-rd., St. George, for T.C. Lessel S. McKenzie, City E. and S., 51, Prince-st. Dep. £1.

Horsforth.—Houses.—66 scullery type, on Cragghill housing site, for U.D.C. Jas. E. Aldersley, Architect to Council. Dep. £2 2s.

***London, S.W.**—Painting.—At the Admiralty, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

JUNE 20.

Bangor.—Houses.—Thirty-two at Glynne-rd. housing site, for T.C. B. Price Davies, City Architect. Dep. £3 3s.

Halifax. — House. — Out-station house, Northowram, for C.B. A. C. Tipple, B.E., Crossley-st., Dep. £1 1s.

***Maidstone.**—Adaptations.—To Technical Institute and Junior Technical School, for Kent E.C. Director of Education, Springfield, Maidstone. Dep. £5 5s.

South Mimms.—Houses.—118, and roads and sewers, at Potters Bar, for R.D.C. S. Dep. £5 5s.

JUNE 22.

East Ham.—Installation.—Of electric lighting at Cornwall High-st. and Plashet schools, for C.B. F. R. Thompson, secretary to E.C. Dep. 10s.

Haslingden.—Houses.—39 non-parlour type, in stone, on Private-lane site, for T.C. R. Taylor, B.S. Dep. £2 2s.

***Kendal.**—Houses.—On Glebe estate. B.S., Town Hall. Dep. £2 2s.

Leeds.—Superstructure.—Erection of, for the City Council. Town Clerk, 26, Great George-st. Dep. £10 10s.

***Leicester.**—City Police Headquarters.—In Northampton-st. City Surveyor, Town Hall. Dep. £2 (payable to the City Treasurer).

***London.**—Cleaning, Painting, etc.—At various hospitals, for the L.C.C. Clerk of the Council, County Hall, Westminster Bridge, S.E.1. Dep. £1.

Stockport.—Foundations.—Site works, foundation works, buildings and cable bridge at Stockport and Bolton, in area of North-West England and North Wales Electricity Scheme, for Central Electricity Board. Richard H. Fox, secretary, Trafalgar-bldgs., 1, Charing Cross, W.C.2. Dep. £2 2s.

JUNE 23.

Bebington and Bromborough.—Walls.—Materials, and construction of reinforced concrete to walls and floor of open-air swimming bath, for U.D.C. P. Parr, B.Sc., E. and S.

***Leicester.**—Alterations.—To the Town Hall. City Surveyor, Town Hall. Dep. £2 2s. (payable to the City Treasurer).

JUNE 24.

***Addiscombe, Croydon.**—Extensions to Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

***East Dulwich.**—Convenience.—Erection of, at Goose Green. Public Service Committee, Town Hall, Camberwell, S.E.5. Dep. £3 3s.

Rochdale.—Houses.—102 on Spotland Tops estate and construction of roads and sewers in connection, for C.B. S. H. Morgan, B.S. Dep. £2 2s.

Southampton.—Reconstruction.—Partial demolition and reconstruction of St. George's Mission, Chapel-st., and conversion into public washhouse, for C.B. B.E., 33-35, French-st. Dep. £2 2s.

JUNE 26.

Brighton.—Electricity Showrooms, etc. — In Castle-sq., for Corporation. Town Clerk, Town Hall. Dep. £5 5s.

Rugby.—Sun Pavilion.—W. T. Loveday, 2a, Lawrence Sherriffe-st. Dep. £1 1s.

JUNE 27.

***Stoke Newington, N.16.**—Sub-station.—For the Borough Electricity Dept., Town Clerk, Town Hall, Milton-rd. Dep. £2 2s.

JUNE 29.

***Epsom.**—Houses.—Erection of, for the U.D.C. Clerk, 49, Church-st. Dep. £2 2s. (payable to the U.D.C.).

***Exeter.**—Houses.—Erection or 350, on the Burnthouse-lane estate. City Architect, 2, Southernhay-st. Dep. £5.

JUNE 30.

Acton, W.3.—Redecorations, etc.—To various schools.—Director of Education, Municipal Offices. Dep. £1 1s.

JULY 11.

***Birkenhead.**—Proposed Public Baths.—Heating, filtration, etc., for the T.C. Town Clerk, Town Hall. Dep. £5 5s.

Egypt.—Power Station.—At Mansourah, for Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.10910.)

NO DATE.

Abram.—Houses.—50, in Crankwood-rd., Plank-lane, and 36 Kingsdown-rd., for U.D.C. W. H. Roby, clerk. Dept. £2 2s.

Armagh.—Improvements.—At Redrock Presbyterian church. H. C. Parkinson, C.E., 8, Abbey-st.

Bucknall.—School.—Sunday school, Chapel-st., for Trustees of the P.M. Chapel. T. Jervis Madew, architect, Bodleys-chams., High-st., Newcastle-under-Lyme. Dep. £2 2s.

Deal. — Additions. — Also alterations to shop premises, 26, High-st., for Timothy White (1928), Ltd. Timothy White (1928), Ltd., Construction Department, 30, Chandos-st., Portsmouth.

Hitchin.—Cottages.—12 at Cockernhoe, 6 at Codicote, 12 at Holwell, 14 at Kimpton, and 8 at Whitwell, also construction of roads at Ickleford, Kimpton and Whitwell housing sites, for R.D.C. A. E. Passingham, clerk. Dep. £2 2s.

Johnshaven.—Alterations.—To public school, for Kincardineshire Education Authority. W. M. Patrick, architect, 26, Yeaman Shore, Dundee.

Lancashire.—Schools.—New senior school at Flixton, alterations and additions to Urmston infants' school, and alterations and additions to Flixton Council school, for E.C. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston. Dep. £2.

Morley.—Painting, etc.—Various properties, for T.C. F. Turner, B.E.

Ripon.—Reslating.—Roof, repairing, pointing, replastering walls, laying concrete floor, inserting hopper sashes and reboarding floor, at Grantley Village Council school. W. E. Oxley, 106, Station-parade, Harrogate.

Treorchy. — Painting. — Conservative Club, Rhondda, Glam. Secretary.

Wirral.—Demolition.—Of Moreton Rectory, C. Russell Hall, Diocesan Surveyor, Congleton, Cheshire.

MATERIALS, etc.

JUNE 8.

Inverness.—Wrought-iron.—For Gas Dept. Manager at Gasworks.

Smethwick.—Cement, etc.—For Gas Dept. E. Hardiker, engineer and manager, Gas Works, Rabone-lane.

JUNE 10.

Birkenhead.—Pipes, etc.—For Gas Dept. Gas Engineer, Gas Works, Thomas-st.

Stockton-on-Tees.—Lime, etc.—For Gas Dept. Engineer and General Manager, Corporation Gas Works, Thompson-st.

JUNE 11.

Bristol.—Bricks, etc.—For Port Authority. W. P Wordsworth, Chief Engineer, Avonmouth Dock.

JUNE 15.

Ellesmere Port and Whitby.—Highway Materials.—For U.D.C. T. W. Francis, clerk.

JUNE 22.

Egypt.—Paints, etc.—For Egyptian Ministry of Public Works. Dept. of Overseas Trade, 35, Old Queen-st., S.W.1 (Ref. B.X. 7077).

ENGINEERING, IRON AND STEEL.

JUNE 8.

Eastbourne.—Drainage.—283 yds. lin. sewers 9 in. to 27 in., manholes, etc., reconstruction underground brick chamber to form pump chamber and sump, including reinforced concrete floors, etc., also brick motor house, for Bourne Valley drainage area, for C.B. L. Roseveare, B.E.

Egypt.—Installation.—In town of Guirgueh, Upper Egypt, of electric power station and distribution system, and modification of waterworks by addition of filter beds, for Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., London, S.W.1. (Ref. A.X. 10870.)

Egypt.—Tank.—Steel storage tank, for State Domains Administration of Egypt. Dept. of Overseas Trade, 35, Old Queen-st., S.W.1 (Ref. G.X. 10440).

JUNE 10.

Neath.—Diversion.—Of Harla-brook, for Corporation. H. Alex. Clarke, B.E. Dep. £2 2s.

JUNE 12.

Derby.—Bridge.—Reinforced concrete bridge of 3 spans and an overall length of about 145 ft., across site of new flood relief channel in Elvaston, for Corporation. James Mansergh & Sons, engineers, 5, Victoria-st., Westminster, S.W.1, or A. W. Farnsworth, engineer, Post Office-chams., Derby. Dep. £5.

JUNE 13.

Street.—Sewerages.—Sewerage and sewage disposal works, for U.D.C. W. Herbert Bateman, E., 17, Argyle-st., Bath. Dep. £2 2s.

JUNE 15.

Kingston-upon-Hull. — Tower.—Reinforced concrete water tower at Swanland, for T.C. W. D. Bingham, Water and Gas Engineer, Alfred Gelder-st. Dep. £2.

JUNE 16.

Basford.—Extensions.—Additions at Newthorpe outfall works, Newthorpe, for R.D.C. Elliott & Brown, chartered civil engineers, Burton-bldgs., Parliament-st., Nottingham. Dep. £1 1s.

Brodick.—Widening.—Masonry, of road bridges at Arranton, Lamlash, and Glen Rosa, Brodick, for Bute C.C. A. C. Crockett, Road Surveyor, Lamlash. Dep. £2 2s.

Egypt.—Main.—5-in. dia. c.i. rising main, ejector chamber and purification works, for El Arish Barracks, for Ministry of Public Works, Main Drainage Department. Deparment of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. G.X. 10325.)

West Bridgford.—Bridge.—Carrying L.M. & S. Rly. over road known as Bridgford-rd., for U.D.C. Wm. Pare, E. and S.

JUNE 18.

Aberdeen. — Improvement. — Reconstruction of Albert Quay, western portion, for length of 990 ft., and relative works, for Harbour Commissioners. Hugh R. Barr, engineer, Harbour Engineer's Office. Dep. £5 5s.

Eyemouth. — Repairs.—Under-water breach in foundation of wall of South Breakwater at St. Abb's Harbour, for Harbour Trust. G. R. Wood, Clerk to Trustees.

JUNE 19.

Rampton, Retford.—Sewage Disposal Works.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1 Dep. £1 1s.

JUNE 22.

Gravesend. — Drainage. — Reinforced concrete tanks and sundry work, comprising extensions to sewage outfall works at Denton Marshes, for T.C. F. T. Grant, B.E. and S., and Hall & Jackson, chartered civil engineers, joint engineers. Dep. £3 3s.

Narberth.—Water Supply.—Supplying, laying and jointing of cast-iron, bitumen-lined steel and asbestos cement pipes, with valves and other specials, and taking up old distributing mains in town, together with service reservoir, collecting chambers, and various other contingent works, for U.D.C. J. Owen Parry, E., Arcade-chams., Ammanford. Dep. £3 3s.

JUNE 23.

Llechryd.—Bridge.—New bridge and approaches and demolition of existing bridge at Llechryd over river Teify, for Cardiganshire and Pembrokeshire C.C.s. John Davies, C.S., County Offices, Horeb, Llandyssul. Dep. £2 2s.

JUNE 24.

Cardiff.—Bridge.—Single span reinforced concrete skew arch bridge over River Ely, for T.C. City E. Dep. £3 3s.

Furness Vale.—Additions.—Additional works, consisting of storm tank, two bacteria beds, two humus tanks, pump house, sludge lagoon, and other work incidental thereto, for Whaley Bridge Joint Sewerage Board. Brady & Partington, chartered civil engineers, Chapel-en-le-Frith. Dep. £5.

Glamorgan.—Viaduct.—New reinforced concrete viaduct and approach at Leckwith, on Cardiff-Penarth-rd., for C.C. G. A. Phillips, C.S., County-hall, Cardiff.

JUNE 29.

Glasgow.—Bridges.—Bridge carrying new Glasgow-Renfrew-rd. over Shieldhall branch line of L.M. & S. Rly Co.; and viaduct bridge over Maxwell-rd. and sloping roadway at Shieldhall, for Corporation. D. Stenhouse, T.C. Dep. £1 1s. each.

ROAD, SEWERAGE, AND WATER WORKS.

JUNE 8.

Braintree.—Lay-out.—Construction of motor omnibus park on Fairfield, for U.D.C. D. G. Armstrong, F.I.A.A., 57, High-st. Dep. £3 3s.

Edinburgh.—Road.—Surfacing about 6,000 superficial yds. of portions of section J.K. (Newbridge to Edinburgh) of new road from Glasgow to Edinburgh, with 2-in. single-coat asphalt, for T.C. D. A. Donald, E., 271, Alexandra-parade, Glasgow, E.1. Dep. £5 5s.

Glasgow.—Sewer.—Over 1 mile long, 6 ft. in dia., mostly in tunnel, extending from point west of Mosspark Pumping Station, Corkerhill-rd., to point near Haugh bridge carrying Barrhead-rd. over Levern Water, for T.C. Thomas Somers, City E. Dep. £5 5s.

Leven.—Street.—Formation of street about 400 yds. long between Park-place and North-st., Elie. A. D. Haxton, architect, Commercial-rd., Leven.

Looe.—Surfacing.—In bituminous macadam and concrete channelling of Hannafore-rd. (part of), for U.D.C. E. St. Leger Whitford, E. and S.

Maidens and Coombe.—Making-up.—Of Long-Walk (west side), for U.D.C. E. and S. Dep. £2 2s.

Manchester.—Paving.—Draining, paving (tarred macadam), flagging (artificial flags), &c.: Whiston-rd., Crumpsall, and Albert-rd., Crumpsall, from Holland-rd. to cul-de-sac end; draining, paving (concrete), &c.: passage behind the Central Synagogue, Heywood-st., and 45, Bridge Oak-st., &c., Cheetham, for T.C. F. E. Warbreck Howell, T.C. Dep. £1 1s.

Melksham.—Making-up.—In connection with Crays housing extensions scheme, for U.D.C. A. M. Smith, clerk, 5, Spa-rd.

Radnorshire.—Widening.—Also reconstruction of about 3½ miles of Llandrindod Wells-Newtown-rd., adjacent to village of Llandadarm Ffynydd, for C.C. James A. Paterson, County Surveyor and Architect, Llandrindod Wells. Dep. £25.

Romsey.—Sewer.—250 lin. yds. of 9 in. dia. surface-water sewer cased in concrete, together with manholes, gully connections and other appurtenant works, for T.C. A. J. Jenvey, B.S.

JUNE 9.

Bushey.—Resurfacing.—With artificial stone paving about 4,714 yd. super of footpaths and other contingent works in Chiltern-av., for U.D.C. E. E. Ryder, E. and S.

Gateshead.—Paving.—Beech-st. (remainder of), Hylton-st. (remainder of), Robson-st. (remainder of), Low Fell, Rosewood-gardens, Sheriff Hill; flagging, etc., Causeway, South of Southway, east side, footpath only, for C.B. F. H. Patterson, B.E.

Kingsbridge.—Main.—Laying of about 1,200 lin. yds. of 3 in. cast-iron water main, for U.D.C. E. and S. Dep. 10s. 6d.

Kingsbridge.—Sewer.—Laying of about 390 lin. yds. of 6 in. stoneware and cast-iron sewer, for U.D.C. E. and S. Dep. 10s. 6d.

Southgate.—Making-up.—Of Green Moor Link; Queen Elizabeth's-drive (section No. 1); Hazelwood crescent; Park-gate, for U.D.C. R. Philips, S Dep. £2.

Sunderland.—Sewer.—Barnes Burn sewer extension, from Ettrick-grove to Grindon hall, for C.B. B.E. Dep. £5 5s.

Sunderland.—Diversion.—Of High-st. East sewer, from Barrack-st. to Custom House Quay, for C.B. B.E. Dep. £5 5s.

JUNE 10.

Rochdale.—Paving.—Of portions of Brocklebank-rd. and Mentmore-rd., for C.B. B.S.

JUNE 12.

Dunstable.—Re-making.—Of carriageway and relaying channels in Waterlow-rd., for T.C. Wm. F. Wilkins, B.S. Dep. £1 1s.

Erith.—Macadam.—Supply and laying of approximately 2,205 sup. yds. of asphalt macadam 2 in. consolidated thickness in Crayford-rd., for U.D.C. H. Hind, E. and S. Dep. £1 1s.

JUNE 13.

Coulsdon and Purley.—Making-up.—Of Normanav. (part of), Sanderstead; Grange-rd. (part of), Sanderstead; St. Andrew's-rd., Coulsdon, for U.D.C. G. A. Ballard, S. Dep. £1 1s. each road.

Dublin.—Resurfacing.—With asphaltic concrete of approximately 70,000 sq. yds. of macadamised roads, for C.B. G. J. Sherlock, City Manager.

Isle of Wight.—Reconstruction.—Of section No. 2 of Chale-Freshwater Military rd., for C.C. John Dufton, County Clerk, County Hall, Newport, I.W. Dep. £2 2s.

West Riding.—Surfacing.—Reconstruction, including surfacing with two-coat asphalt 3 in. thickness on concrete foundation of an area of approximately 3,500 sq. yds., together with footpath and drainage works, of section of Kirkstall, Otley and Shipley (Shipley and Otley Branch) County-road, Baildon, for C.C. C.S., Wakefield. Dep. £1.

JUNE 15.

Barlby.—Road.—New road on Hull-Selby-rd., for East Riding C.C. C.S., Beverley. Dep. £5.

Exeter.—Sewerage.—Two main intercepting sewers and rising main with syphons under river and canal comprising laying of approximately 7,900 yds. of sewers in cast-iron, concrete and stoneware pipes, varying in size between 12 in. and 54 in. dia., and provision of manholes, hatch box chambers, etc., for T.C. R. H. Dymond, City E. and S., 7, Southernhay West. Dep. £5 5s.

Reigate.—Drainage.—Surface water drainage between Chart-lane and Bell-st., including laying of 24 in., 18 in., 12 in. and 9 in. dia. stoneware and concrete pipes, for T.C. G. G. Sanderson, B.E. and S. Dep. £2 2s.

JUNE 16.

Carlisle.—Road.—Construction tarmacadam footways and carriageways, approximately 450 yds. in length, on Raffles-Newtown housing estate, for T.C. Percy Dalton, A.R.I.B.A., City E. and S., 18, Fisher-st. Dep. £1 1s.

East Ham.—Paving.—Repairing tar paving of playgrounds at Wakefield Central and Castle-st. R.C. schools, and resurfacing playgrounds at Central Park, Hartley, Napier and Castle-st. R.C. schools, for C.B. A. T. Bridgewater, B.E. Dep. 10s.

London.—Making-up.—Also paving of Solivan-rd., section 2, as new street, for Fulham B.C. A. F. Holden, B.E. and S.

London.—Paving.—Of part two of Danehy-rd., Catford, for Lewisham B.C. J. W. Shuter, T.C.

Tottenham.—Reconstruction.—Of High-rd. from High Cross to Edmonton boundary, with creosoted deal blocks on 10 in. of reinforced concrete, for U.D.C. E. Dep. £2.

Tottenham.—Making-up.—Of Craven Park-rd. (section 3); Holcombe-rd. (remainder); Leadale-rd.; Lakefield-rd (remainder), for U.D.C. E. Dep. £1.

NO DATE.

Dumfries.—Piping.—Laying 100 yds. 1½ in. water piping and supplying pump on Cottown Croft, Kintore. Dundas Chemical Co., Dumfries.

Selby.—Water Supply.—Cast-iron, steel, and galvanised water mains, including hydrants, valves, special castings, etc., also for carting, laying and jointing of same, for eight villages, for R.D.C. R. F. Braithwaite, E., 33, Finkle-st., Selby. Dep. £2.

Public Appointments

JUNE 8.

Durham.—Clerk of Works. City Engineer, Town Hall.

Mitcham.—Clerk of Works required by U.D.C. Riley Schofield, The Vestry Hall.

JUNE 9.

Chesterfield.—Clerk of Works.—Required by U.D.C. Clerk, Public Assistance Offices.

Morecambe and Heysham.—Clerk of Works. B.E., Town Hall.

JUNE 10.

Belvedere, Kent.—Clerk of Works.— For Erith U.D.C. Clerk, Council Offices.

JUNE 12.

Lewes.—Clerk of Works. E. A. Verger, County Architect, 173, High-st.

North Shields.—Town Planning Assistant.—John L. Beckett, Borough Surveyor's Office, 19/20, Howard-st.

JUNE 13.

Sutton.—Building Inspector.—Required by the U.D.C. W. Hedley Grieves, Municipal Offices.

JUNE 15.

Derby.—Two Architectural Assistants required by Corporation. Borough Architect, Gower-st.

Bedford.—Architectural Assistant. B.E. and S., Newnham House, Horne-lane

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S. Surveyor, S.; Engineer, E.

Aberdeen.—Ten houses at Rubislaw-park-crescent. Jenkins & Marr, architects, 16, Bridge-st.

Adlington.—U.D.C. apply to M.H. for £10,100 for 26 houses on Fairview estate.

Amersham.—Bucks E.C. approved £263 for temporary classroom at Amersham Grammar School.

Annfield Plain.—U.D.C. to erect 34 houses.

Arnold.—Notts E.C. propose to purchase site for school for about 500 scholars.

Ashington.—Plans prepared by S. for child welfare centre.

Aspull.—Parochial Council of St. Elizabeth's propose memorial parochial hall to late vicar. New St. Elizabeth's vicarage is proposed.

Atherton.—Church of England authorities propose remodelling schools as senior school. Plans by Taylor & Young, FF.R.I.B.A., 19, Chapel-walks, Manchester.

Bedlington (Northumberland).—U.D.C. propose to acquire more land for housing. J. W. Pooley, S.

Belford.—Northumberland E.C. considering conversion of Belford Hall and grounds into a senior school with accommodation for 360 pupils.

Berwickshire.—C.C. proposes sewerage and sewage disposal at Greenlaw. D. Balfour & Son, 3, St. Nicholas-bldgs., Newcastle, are engineers. Tenders invited.

Bingley.—U.D.C. to acquire land in Ferncliffe district for houses. H. Bottomley, S.

Birmingham.—E.C. obtained site for third school on Weoley Castle Farm housing estate. Plans by Herbert T. Buckland, F.R.I.B.A., Norwich Union-chams., Congreve-st.—Plans approved for extending Aston Commercial school at £4,850; and junior day technical school at Carnarvon-rd., Bordesley Green, at £22,500.—Alterations and additions at College-rd. Council school. Plans by A. L. Snow, A.R.I.B.A., Colmore-row.—In connection with alterations and additions at Dennis-rd. Council school, W. H. Ashford, A.R.I.B.A., 3, Newhall-st., been appointed architect. Site acquired for art technical and commercial education.

Blackpool.—B.E. approved site off Highfield-rd. for Council school. Plans by B.S.

Blaydon (Co. Durham).—Council received sanction to 190 houses.

Blyth.—L. Leeper, engineer to T.C., prepared plans for 11 chalets on sea front.

Bollington.—Manchester and Salford Saturday Holiday Fund Trustees propose home in Jackson-lane.

Bradford.—W. Williamson, F.R.I.B.A., Town Hall, to prepare plans for operating theatre block to cost £10,000 at St. Luke's Hospital, for Hospital Committee.

Bridge.—R.D.C. to erect 8 houses at Bekesbourne.

Brighton.—General Purposes Committee recommend acceptance of offer of £2,950 for site between Whitehawk-rd. and Wilson-av., for garage.—Health Committee resolved to advertise for tenders for houses on Tarner's land, and to provide for 44 houses on Whitehawk site.

Burton-on-Trent.—Wesleyan Church in Measham-rd., Moira, Ashby Woulds. Arthur Brocklehurst & Co., L.R.I.B.A., architects, 10, Norfolk-st., Manchester.

Caernarvon.—S. Allsop & Sons, Ltd., brewers, Station-st., Burton-on-Trent, proposing alterations, "Eagles Hotel." Plans by T. E. Jones, A.R.I.B.A., Arvonia-bldgs., High-st., Bangor, N. Wales. Tenders shortly to be invited.

Camborne.—U.D.C. to purchase land between National Schools and cattle market on which to build 54 non-parlour houses.

Cannock.—S. Harrison architect for extensions to Belt Head Council school, High Town, for E.C. Cost £10,000.

Carlisle.—J. H. Martindale, F.R.I.B.A., architect, Eaglesfield Abbey Rooms, Castle-st. architect for extensions to St. Cuthbert's Church. Tenders not yet invited.

Chelmsford.—M.H. held inquiry into application of R.D.C. to loan £68,756 for works of sewerage and sewage disposal in parishes of Buttsbury, Stock, and Ingatestone and Fryerning.

Cheshire.—Plans approved for school at Frodsham for 320 scholars at £15,500. F. Anstead Browne, F.R.I.B.A., County Architect, Newgate, Chester.—E.C. to acquire site, Pepper-st., Lymm, for Council school.

Chester.—T.C. resolved that approval be given to proposals of Cheshire Joint Board for Mentally Defective for adaptation and renovation of Cranage Hall at £6,600.—Eight sub-stations are to be built in various places.—F. C. Saxon been instructed to prepare plan and estimate for shelter on top of electrical sub-station erected at Dingle.—City S. to obtain tenders for shelter at Water Tower Grounds.—Council resolved that revised plans of suggested police office accommodation and for alterations to police cells and proposals for work in connection with muster room be approved.—Plans passed: office and store at Sandy-lane, Boughton, H. & H. Whiteley.—E.C. considering additional school accommodation at Handbridge.—Tenders invited for painting, etc., at School of Art.

Chesterfield.—B.S. to carry out fencing and shrubbery at Markham Rest-place on Tapton estate, at £300.—Plans passed:—warehouse, Portland Works, Robinson & Sons, Ltd.; extension to warehouse, Queen-st., Whittington Moor, Shentall, Ltd.; alterations to Brampton Board School, Springfield-av., E.C.

Darlington.—Housing Committee to make application to M.H. for further 100 houses.

Doncaster.—P.C. to erect church hall at St. Luke's, New Rossington.

Dorking.—U.D.C. proposing 102 more houses

Dublin.—Plans approved by City Architect:—Griffith-av., 8 houses, Civil Service Housing Association, Ltd.; 37 Wicklow-st. and 55, Clarendon-st., alterations, B. Wine: Anglesea-rd., 5 houses, F. Sparling; 33, Clarendon-st., shop premises, M. & W. Greene.

Dudley.—T.C. to prepare scheme for lodging-house.

Dumfries.—J. Barker, B.E., instructed to prepare plans for slaughterhouse, roads, accesses, drains and sewers.

Eastbourne.—T.C. recommend tenders be invited for erection on Wartling and Winchelsea roads site of 14 houses, containing two one-bedroomed flats each; 14 two-bedroomed houses, non-parlour type; 20 three-bedroomed houses, parlour type; also for erection on Corporation-rd. site of 14 houses.

Eastcote.—66 semi-detached houses at Deane estate, by Rotherham Estates, Ltd.

Easington.—R.D.C. to apply for sanction to erect further 2,000 houses.

Edinburgh.—Preparatory school for the Merchant Co. Education Board at Craighouse-rd. Architects, J. Dunn & Partners, 14, Frederick-st.—Corporation to erect 446 houses at Stenhouse Mills housing site. Architect, E. J. MacRae, City Engineer, High-st.—At West Saville-ter. James Shiell, Edinburgh, to erect 12 villa-flats.

Epsom.—U.D.C. approved:—40 houses in Hook-rd., between Isolation Hospital and Gibraltar footpath; 20 flats in centre of Horton estate; 8 flats, adjoining electricity sub-station; that plans prepared by architect be approved and tenders invited.—Plans approved:—conversion of old sanatorium into school house at Epsom College, for Governers of College.

Essex.—Highways Committee recommended reconstruction schemes, that on Grays-Southend road at £50,000.

Eton.—R.D.C. approved:—Burnham, 3 pairs of houses, H. & C. Rochford; Iver, transformer chamber at Park Lodge, Fulmer-rd., Uxbridge and District Electric Supply Co.

Flixton.—James Wild & Co. Estates, Ltd., George-rd., propose 154 bungalows and houses on Shawe Hall estate.

Foleshill.—R.D.C. approved:—24 houses, Hermitage-rd., Wyken, W. Morris; 6 houses, Sowe-lane, Binley, J. & W. J. Magson; institute, Grange-av., Binley, Binley Colliery Club and Institute; 6 houses, Wycliffe-rd., Wyken, J. B. Harvey & Son.

Garforth.—Tenders invited for extensions at Isolation Hospital.

Gateshead.—T.C. approved plans for 300 houses behind Old Fold-rd.

Glasgow.—Plans being prepared for warehouse at Candlerigg's, Glasgow Cross. Cost £40,000.—J. Taylor Thomson, architect, 212, Bath-st.

Glasgow.—Schedules being prepared for extension at £20,000 for James Craig, Ltd., Woodlands-rd., Glasgow, extension to Gordan-st. lunch rooms, etc. J. Carruthers, architect, 209, St. Vincent-st.—Schedules being prepared for £500,000, Lennox Castle, Aged Colony and Home scheme, for Corporation. Wylie, Wright & Wylie, architects, 204, West Regent-st., Glasgow.

Glasshouses.—Wesleyan authorities propose Sunday-school at Glasshouses. Plans by A. Brocklehurst, F.R.I.B.A., architect, Martin's Bank-chams., 10, Norfolk-st., Manchester.

Greenock.—New hostel by Council. Architects, D. Henderson, Housing Director, Greenock.

Grimsby.—T.C. proposing £3,927 upon alterations at Scarthoe School.

Guildford.—E.C. to consider accommodation required for separate senior schools for boys and girls at Stoughton by means of converting existing buildings. It also recommended that T. R. Clemence, F.R.I.B.A., be appointed architect to prepare plans for conversion.

Hartsborne and Seals.—R.D.C. approved:—8 pairs of houses, for Solomon Whitaker.

Havant.—U.D.C. appointed S. as architect in connection with 30 houses on Staunton-rd. site.

Hayes and Harlington.—U.D.C. proposing sewerage scheme to cost £96,000.—Council approved 3 schemes as follows:—(1) Botwell Common-lane, £16,500; (2) Morgan's-lane, £3,200; (3) Tentelow-lane, £41,000.—Council in possession of about 100 acres of land in Hayes and proposed to acquire further land at Harlington and Cranford for erection of houses.—Plans were approved:—revised lay-out, 44 houses, Manton estate, Walters & Blake; typical plans, blocks of 2, 4 and 6 houses, Manton estate, Walters & Blake; lay-out, 94 houses, Grange Farm estate, Taylor Woodrow, Ltd.; lay-out, 189 houses, Grange Farm estate, Taylor Woodrow, Ltd.; 4 houses, Polehill-rd., W. Buckingham; 5 shops and flats, Queen's-crescent, West Middlesex Investment Co., Ltd.; "Berkeley Arms" hotel, Cranford, Benskin's Watford Brewery, Ltd.

Headingley.—Club house on football grounds for members of Football Club. Cost between £1,000 and £1,200.

Hebburn.—E.C. appointed T. A. Page & Sons, 67, King-st., South Shields, as architects for senior Council school at £25,000.—Architect not yet appointed for school for E.C., estimated to cost £12,000.

Hebden Bridge.—Council to build 11 houses at Eaves estate.

Hemsworth.—South Yorkshire Wesleyan Coalfields Commission been given site at Upton by Colliery Co. for chapel hall.—W. T. Lynam, Marketchams., Hemsworth, architect for headquarters in Wagon-lane, Upton, for Harewood and Upton Recreation Club and Institute.

Hendon.—Council approved:—52 houses, Lynton-av., New Way-rd. and Clovelly-av., Woodlands estate, The Hyde, B. Gasson; 24 houses, Tithe-close, Watford-way, T. Christie; 37 houses, Westway, Mill Hill, H. J. Hook & Son; 22 houses, Holders Hill-rd., Pell & Clayton; 8 houses, Saddlescombe-way, Mill Hill, O. H. Cockrill; 16 houses, Watford-way, Hendon, A. E. Hamilton; 3 shops and flats, Edgware-rd., The Hyde, H. C. Hollis; 14 houses, Colindeep-lane, Hendon, C. W. B. Simmonds; 36 houses, Boyne-av., and King's-close, Hendon, Golders.

Hornchurch.—U.D.C. approved:—24 houses, Burnway, F. G. Read; 6 houses, Woodhall-cres., Southcott & Wilson; 12 houses, The Avenue, P. A. Stammers; 4 houses, Beverley-gardens, W. L. Knight; 4 houses, Percival-rd., F. Cox, W. Williams & W. Wooldridge; 8 houses, Woodhall-cres., A. & C. Lawford; 6 houses, Clarence-av., W. Griffiths; 9 houses, Curtis-rd., G. Wood; 11 houses, Cranham-rd., S. W. Wells; 6 houses, Hillview-av., Standen Bros.; 36 houses, Southend-rd., G. Bradshaw; 4 houses, Beverley-gardens, W. W. Jones; 4 houses, Ardleigh Green-rd., Jay & Deverell; 22 houses, Hillview-av., for C. A. Ward; 15 houses, Ethelburga-rd., Pharoah Bros.; 6 houses in Archibald-rd., Pharoah Bros.; 8 houses, Bruce-av., F. G. Belcher; 16 houses, New Hall-drive, G. A. Ball; 41 houses, Norman-rd., G. J. Crabb.

Horsham.—U.D.C. are proposing 144 houses, at £68,170.

Ibstock.—R.C. authorities erect church.

Ince.—District Council propose 180 houses on Westwood site.

Jarrow-on-Tyne.—Three acres of land to be sold by T.C. for Roman Catholic day school. J. Burke, 12, Grey-st., Newcastle-on-Tyne, architect.

Keighley.—Corporation to build additional 87 houses on Highfield estate.

Kettering.—U.D.C. approved:—O. P. Drever & Son, Ltd., house and shop, Bath-rd., and 6 houses, Linden-av.; A. Mutton, 8 houses, Howard-st.

Kibblesworth.—Durham County E.C. propose school with accommodation for 260 pupils. Architect, F. Willey, 34, Old Elvet, Durham.

Kilmacolm.—Garage, Lochwinnoch-rd. Architect, J. Austin Laird, 55, West Regent-st., Glasgow.

Kirkcaldy.—Extension to showrooms, offices, etc., for Gas Department. Burgh Architect and Engineer.

Kirkcaldy.—£300 estimated expenditure, extension and renovation of Abden House. G. Duffer, architect, 10, Tolbooth-st., Kirkcaldy.

Lancaster.—T. C. to erect pavilion in Palatine-av. recreation ground.

Leeds.—Reconstruction of upper floors at B. Wades, pipe manufacturers, York-place, shortly to be commenced. Architects, A. & F. Mosley, Ltd., Wormald-row.—Central Garage, Ltd., to erect new garage, showrooms and workshop in Regent-st.

Leicestershire.—C.C. to purchase Stretton Hall and adapt it for mental defectives. Cost £4,500.

Letchworth.—U.D.C. approved:—Palace Theatre, flat and offices, Eastcheap; British Tabulating Co., factory gates, Icknield-way; Willian Parochial Church Council, addition to St. Paul's Church, Pixmore-way.

Liverpool.—T.C. recommend extensions to Edge Hill depot, to accommodate work from Sandhills depot.—T.C. to purchase property for housing purposes.—Council proposing construction of recreation hall for the use of Corporation tenants in Norris Green area.—E.C. recommend £6,383 in respect of additional portable council school on Formosa-drive site; £10,092, Abingdon-rd. portable Council school; £475, conditioning of flat roof at Great Homer Council school as roof playground; and £56,352, Highfield Council school, Broadgreen.—M.H. forward formal sanctions to borrowing of £18,000 for building and equipping the new central towel laundry in Burroughs Garden.

Llanberis.—Carnarvonshire E.C. proposing new school.

London (Bermondsey).—B.C. to apply to L.C.C. for £17,000 for flats and shops fronting Spa-rd.

London (Chelsea).—B.C. approved following drainage plans: John Greenwood, Ltd., house, 28, St Leonard's-terr.; R. Salisbury & Co., Ltd., house, 60, Cadogan-sq.; Sainsbury & Bell, house, 1, Markham-st.; Elwes, Ltd., house, 11, West Eaton-place.

London (City).—Navigation Properties Co., Ltd., to erect bridge across and over public-way of Lower Thames-st., connecting premises known as warehouse "D" and warehouse "H." Brewer's Quay.—Corporation recommend for oak fence surrounding Wanstead-pk. £300.

* See also List of Contracts, Competitions, etc.

London (Lambeth).—B.C. approved: C. Barrett (Shopfitters), Ltd., garages at rear 43 and 45, Carroun-rd.; H. W. Binns, house with bay and gables, 40, Ferndene-rd., with garage abutting upon Sunset-rd.; H.M. Office of Works, building on site of "Halnaker" Lodge, Coldharbour-lane.

London (Paddington).—B.C. recommend reconstruction of cashier's office and provision of new lavatories at public laundry, Kensal-rd baths, by direct labour, at £145.—B.E. to carry out improvements at town hall, at £231.

London (Poplar).—B.C. received L.C.C. sanction to borrowing of £1,600 for acquisition of freehold and leasehold interests in site at Judkin-st. and Rolfey-st.—M.H. held inquiry into application of Council to borrow £138,537 for reconstruction of Poplar baths.—M.H. given consent to purchase by Council of two cottages in connection with Poplar High-st. scheme for erection of 11 flats.—Plans passed: Andrews & Peascod, 135, Bow-rd., E.3; building and drainage, new lavatory, etc., 183, Bow-rd., E.3.; S. Plunkett, 253, Globe-rd., E.2, building and drainage, new W.C.'s, Iceland Wharf, Iceland-rd., E.3.

Lynton.—U.D.C. to spend £340 on improvements to hospitals.—M.H. sanctioned £3,000 for shelter at Esplanade, Lynmouth.

Maidenhead.—W. R. Davidge, 5, Victoria-st., S.W.1, to prepare town planning scheme for T.C.—M.H. sanctioned 30 more houses at Boyn Valley-rd.

Maidstone.—M.H. approved 12 houses, East Farleigh, and 8, Staplehurst, for R.D.C.

Manchester.—Fred Riley, F.R.I.B.A. (Brameld & Smith), chartered architect, County-bldgs., 4, Cannon-st., prepared plans of alterations to "Unicorn Hotel," Liverpool-rd., Peel Green, for Walker & Homfrays, Ltd., Salford. Quantities by T. Sumner Smith, F.S.I., Quantity Surveyor, Clifton Lodge, The Crescent, Victoria-pk.

Market Bosworth.—Alterations at Institution at £3,564.

Marley Hill (Durham).—Colliery Welfare to erect institute. Site near St. Cuthbert's Church.

Maryport.—T. Nicholson, architect, 47, John-st., Workington, prepared plans for alterations at "Tark's Head," King-st., for Workington Brewery Co.

Melford.—R.D.C. to build 34 houses at Bures St. Mary, Cavendish, Great Waldingfield, Long Melford and Nayland.

Melton Mowbray.—U.D.C. approved:—Senior girls' school and junior Council school at junction of Wilton-rd. and Asfordby-rd., for Leicestershire E.C.

Middleton (Leeds).—Miss E. Kershaw acquired site on housing estate for new shop premises.

Morecambe.—Plans by P. W. Ladmore, B.E. and S. for shelter and conveniences at Whinnistye-lane, for T.C.—Richard Dobson, L.R.I.B.A., 27a, Euston-rd., Morecambe, architect for rebuilding of warehouse in Union-st. for Morecambe Press, Ltd.

Morpeth.—T.C. approved plans by C. F. Murphy, Newgate-st., for cottage hospital for Victoria Cottage Hospital and District Nursing Association.

Newcastle.—No contract let for alterations to Cathedral Nursing Association Home. F. E. Dotchin, 46, Grainger-st., architect.—Rankin, contractors, etc., to erect garage for own use in City-rd. W. Riddle, 53, Denham-ter., Wallsend, architect.—Improvements, including reconstruction and decoration, to be carried out at Rinaldo's Restaurant, Grainger-st. J. Walton Taylor, St. John-st., architect.—T.C. approved plans for Congregational Church in Fenham district. Marshall & Tweedy, Mervyn House, Pilgrim-st., prepared plans. Contract not yet placed.—T.C. approved plans for dental hospital in Queen Victoria-rd., for Durham College of Medicine. Newcombe & Newcombe, 23, Eldon-sq., architects.—T.C. to lease land at corner of Northumberland-rd. to C. & A. Modes, Ltd., London, for premises.

Newcastle-upon-Tyne.—Plans been passed for rebuilding of P.C.H.A. premises, Percy-st.

Northampton.—Proposals of Libraries Committee regarding extension to art gallery and museum in Guildhall-rd., at £3,440, been considered by T.C.—Plans passed: 9 houses, road "B" (off Park-av. North), Walker & Perrett; electricity sub-station, St. Edmund's-rd., Northampton Electric Light & Power Co., Ltd.; new timber store sheds, furniture etc., factory Broad-st., R. Finnegan.

Northumberland.—C.C. proposes school at Stannington.

Penkridge.—Lichfield Brewery Co., Ltd., Lichfield, propose rebuilding of "George and Fox" hotel, Penkridge. Plans by R. J. Barnes, City-chams., Bore-st.

Pontefract.—Hustler & Taylor, LL.R.I.B.A., architects, 26, Ropergate, Pontefract, preparing plans for alterations, etc., to Board Vaults.—H. Wormald, A.R.I.B.A., County Hall, Wakefield, prepared plans for conversion of Eastwell Lodge, Carleton, into children's home at £1,160.

Port Glasgow.—Eighty houses by Council at Aldergrove. Housing Architects, G. Arthur & Sons, 233, St. Vincent-st., Glasgow.

Preston.—Matthew, Brown & Co., Ltd., and Nuttall's Brewery, Ltd., Lion Brewery, Blackburn, proposing to rebuild "Bay Horse Hotel" at Catforth, near Preston.

Preston.—T.C. approved: W. Smirk, two garages, 4 and 5, Brooklands; electricity (Corporation) sub-station, Swan-st.; Kenyon & Co., Ltd., motor body building works and showrooms, Marsh-lane.

Pudsey.—Corporation to acquire site adjoining St. James' Church for elementary school.

Rawtenstall.—T.C. to erect Council school at Crawshawbooth.—T.C. propose 38 houses off Ashworth-lane, Edgeside. B.S.

Redcar.—Kitching & Co., 21, Albert-rd., Middlesbrough, architects for church hall.

Renfrewshire.—At Kilmarnock-rd., Giffnock, 32 houses, by McTaggart & Mickel, Ltd., builders, 65, Bath-st., Glasgow.

Rochdale.—E.C. to erect Girls' secondary school at Greenhill, senior school at Lower-place and a nursery school. Plans by B.S.

Rochford.—Increased accommodation at institution is proposed.

Rotherham.—M.H. approved 27 houses at Bramley for R.D.C.

Rutland.—C.C. proposing homes for mental defectives.

Sedgefield. — R.D.C. approved:—Extension to Thrislington Colliery electrical sub-station, Cleveland and Durham Electric Power Co.

Sefton.—Scheme for 10 houses in Sefton and 6 in Ince Blundell approved by R.D.C.

Sheffield.—Corporation spending £87,000 on road schemes.

Shepshed.—Provisionn! plans of proposed new adult school hall been prepared by McCarthy, Collings & Co., of Coalville. Cost £3,000.

Skipton.—Hospital Committee propose maternity block at institution at £4,000. Architects, J. Hartley & Son, Swadford-chams.

Slough.—U.D.C. approved:—Perry & Son, 17 houses, Station-rd. and Meadfield-rd., Langley; B. E. Smith, 5 houses, Langley Broom; W. Varney, 6 bungalows, off Windsor-lane, Burnham; Premier Line, Ltd., garage and public petrol filling station, Bath-rd.; Ibbs G. Wrightson, 4 houses, Langley-rd.; Slough and Datchet Electric Supply Co., Ltd., transformer chamber, Upton-pk.; Slough and Datchet Electric Supply Co., Ltd., transformer chamber, London-rd.

South Kirkby.—Marriott, Son & Shaw, architects and surveyors, Church-st-chams., Dewsbury, preparing plans for new vicarage for Parochial Council of South Kirkby Parish Church.

Stanley.—U.D.C. to consider subway under railway at end of Clifford-rd.

Startforth.—R.D.C. decided to support resolution by Barnard Castle R.D.C. recommending new county bridge be built over Tees from top of Barnard Castle town.

Stirling.—Plans prepared for reconstruction and extension to "Station Hotel." Cost £10,000 to £12,000. Architects, J. Miller, R.S.A., 15, Blythes-wood-sq., Glasgow.

Stockport.—T.C. to erect 48 houses on Nangreave-rd. site, Stockport. Plans by B.S.

Sunderland.—E.C. proposing to acquire Ashburn House for adaptation as School of Art. G. Matkin, Borough Architect.—Housing Committee recommend 217 houses in Grangetown district.

Sundon.—The church to be restored at £2,000. Vicar, Rev. C. T. Mundy.

Swadlincote.—U.D.C. to build 290 houses during next five years.

Twickenham.—Approval given to B.C. to 44 houses south side of Kneller-rd., near Chase-bridge.

Uxbridge.—U.D.C. proposing 31 houses at Cowley.—Plans passed: Whitehall-rd., Uxbridge, 4 houses, F. Curtis; The Drive, Swakeleys, Ickenham, 6 houses, R. T. Warren; Long-lane, Ickenham, 2 shops with living accommodation, H. Higginbotham; 184 and 185, High-st., Uxbridge, rebuilding, Greater London Properties, Ltd.; Corwell-lane, Hillingdon, 7 houses, Edwards & Hartley; Harefield-rd., Uxbridge, 6 houses, P. S. Riebold; Dawley Court estate, Hillingdon, 52 houses, W. G. Chapman & Sons, Ltd., Copthall-rd., Ivy House estate, Ickenham, 8 bungalows, R. O. McGown, Ltd.; Dorset-way, and The Rise, Hillingdon, 14 houses, R. T. Warren; Court-drive, Hillingdon, 8 houses, E. H. Wale, Ltd.; Windsor-av. and Grosvenor-cres., Hillingdon, 52 houses, Waller & Dobson; Clayton-Waye, Cowley, 6 houses, W. S. Try; High-st., Uxbridge, cinematograph theatre and cafe, A. E. Abrahams; 275, High-st., Uxbridge, alterations, United Dairies, Ltd.

Wallasey.—Negotiations proceeding for purchase by Council of land at Irby for cemetery purposes.—Application being made to M.H. for sanction to borrow £15,000 for widening and reconstruction of Wallasey-rd., between Moseley-av., opposite the "Boot Inn," and Seaview-rd.

Walsall.—Parochial Council of Parish Church to erect school at £8,000.

Warrington.—Peter Warrington & Son (Warrington & Burton), Ltd., Dallam Brewery, propose malt kiln to works.

Weetslade.—Council decided to proceed with housing scheme.

Weston-super-Mare.—Convalescent home, western end of Kewstoke Woods, for Birmingham Hospital Saturday Fund, 43, Newhall-st., Birmingham. W. H. Martin, architect, 174, Corporation-st., Birmingham.

Whitley Bay.—Ground floor of old Council chambers to be converted into shops. S. prepared plans.

Wigan.—Sanction received for borrowing of £1,100 for relief offices in Tunstall-lane, Pemberton.

Wimbledon.—B.C. received Electricity Commissioners' sanction to £670 for building sub-station. £170 to be spent on repairs to roof of coal-tipping platform.

Wirksworth.—Rev. Askew prepared plans for Catholic Church for Our Lady and St. Theresa.—U.D.C. to proceed with 12 houses.

Wrexham.—Corporation about to carry out schemes of new sewerage works at £43,150, and other public improvements, at £26,418. Council to build 170 more houses on Acton-pk.

PATENTS

APPLICATIONS PUBLISHED.

345,987.—G. F. Thomson: Pigments for painting or staining purposes.

345,996.—E. Barthelmess: Apparatus for grinding and sifting.

346,053.—I. Kotani: Method of rendering concrete surfaces acid-proof.

346,056.—J. Parsons: Slabs for use in construction of floors, steps and pavements, etc.

346,109.—J. S. Withers (Koehring Co.): Concrete-mixers.

Note.—Period for opposition expires June 15, 1931.

346,748.—K. Frey and H. Van Cleeff: Guiding surfaces for fluid conduits.

346,699.—F. Fanta: Method of and means for continuously manufacturing building-bricks.

347,061.—E. Hoffmann: Concrete floors.

347,071.—C. C. Carson: Method and apparatus for heating buildings.

Note.—Period for opposition expires June 29, 1931.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

BIRCHENWOOD BRICK AND TILE CO., LTD. (256,326). Registered May 11. Brick manufacturers. Nominal capital, £6,000. J. Cadman, Walton Hall, Eccleshall, Staffs.

SCOTTS (ST. HELENS), LTD. (256,319). Registered May 9. 25, Shaw-street, St. Helens. Heating and ventilating engineers. Nominal capital, £7,000.

EAST KENT BRICK AND BALLAST WORKS, LTD. (256,277). Registered May 8. 88/90, Chancery-lane, W.C.2. Brick and tile manufacturers, etc. Nominal capital, £700.

HURST BRICK AND TILE CO., LTD. (256,395). Registered May 13. Manufacturers of and dealers in bricks, tiles, etc. Nominal capital, £3,000. L. Isitt, "Arleston," Green-lane, Purley.

HOLLINGDEAN HAULAGE CO., LTD. (256,424). Registered May 14. 1, Pavilion Buildings, Brighton. Haulage contractor and builders' supply merchant. Nominal capital, £750.

PADLOWS, LTD. (256,211). Registered May 5. 7, Mandeville-place, W.1. General merchants, builders and contractors, etc. Nominal capital, £100.

LONDON MASTER BUILDERS' SPORTS ASSOCIATION.

FOLLOWING are results and tables in connection with the Cricket League of this Association, up to and including May 30:—

DIVISION A.

Holloways ..... 85 Farmiloe 31
(Collins 7 for 4).
Downs beat Minters.

DIVISION B.

Wills ..... 68 (7 w.) Parkonian 45
(Brown 6 for 13).
Dawnays scratched to Forton.

Tables.

DIVISION A.

	P.	W.	D.	L.	Pts.
Holloways	3	2	1	—	5
Broadmead	2	1	1	—	3
Downs	3	1	1	1	3
Higgs	1	—	1	—	1
Minter	2	—	1	1	1
Farmiloe	3	—	1	2	1

DIVISION B.

	P.	W.	D.	L.	Pts.
Wills	3	2	1	—	5
Parkonian	4	2	1	1	5
Souwestone	4	1	2	1	4
Forton	3	1	1	1	3
Dawnay	3	—	2	1	2
Trocoll	3	—	2	1	2
Limmer	2	—	1	1	1

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 11 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 13 3	Bo. Bullnose	9 15 0
Do., Bullnose	3 5 3	Blue Wire Cuts	7 5 0

White Midhurst Facing Bricks (delivered London site) 5 0 0

Best Stourbridge Fire Brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
Headers	20 10 0	D'ble Headers	26 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	One Side and two Ends	30 10 0
		Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £6 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. " "	2 4	4 in. "	3 6

	s. d.	
Thames Ballast	8 0	per yd
Pit Sand	11 0	" "
Thames Sand	11 0	" "
Best Washed Sand	11 6	" "
¾ in. Shingle for Ferro-Concrete	8 6	" "
½ in.	11 0	" "
¼ in. Broken Brick	10 6	" "
Pan Breeze	8 0	" "

delivered 2 miles radius Paddington

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 6 0 to £2 8 0

30s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 7 6
Vitocrete " "	0 7 6
Super Cement (Waterproof)	3 10 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
CHILMARK—RANDOM BLOCK— At Nine Elms, per ft. cube	3 11
HOPTON-WOOD STONE— F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P. ft. cb.	s. d. 14 0
Sawn two sides "	22 6
Sawn three or four sides "	27 6
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London 6 in. sawn two sides landings to sizes (under 30 ft. super) ..... Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 3½
HARD YORK— Delivered at any Goods Station, London. Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 1½
3 in. ditto ditto "	2 10
2 in. self-faced random flags ..... Per yd. super	8 0

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£27 10	3 × 6	£20 0
4 × 9	26 0	3 × 11	22 0
4 × 8	25 0	2 × 11	23 0
4 × 7	23 0	3 × 9	22 0
3 × 8	20 0	2½ × 9	22 0
3 × 7	20 0	3 × 4½	20 0
2½ × 7	20 0	3 × 4	20 0

PLANED BOARDS.

1 × 11	£28 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	18/-	1¼	29/-
¾	20/-	1½	33/-
1	23/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	MATCHING (BEST). Inches.	per sq.
1	24/-	⅝	16/6
1¼	30/-	¾	19/-
1½	34/-	1	24/-

ins. BATTENS.	s. d.	SAWN LATHS.	s. d.
⅞ × 2 ..... per 100 ft.	2 6	Per bundle	2 0

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cubs	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	£4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 0 0	18 by 10	17 5 0
22 by 12	27 19 6	18 by 9	15 10 0
22 by 11	25 5 0	16 by 10	14 14 6
20 by 12	24 7 6	16 by 8	11 5 0
20 by 10	20 17 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000. f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district		£5 2 6
ditto hand-made ditto		5 7 6
Ornamental ditto		5 12 6
Hip and valley tiles (per dozen)	Hand-made	0 9 6
	Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON— R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
" Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ⅞ in.	10 15 0
⅜ in.	11 0 0	1 in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS— (Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	62½	50	45	47½	55	57½
Water	58½	46½	40	42½	50	52½
Steam	55	42½	35	37½	45	47½
Galv. gas	50	37½	35	37½	45	47½
Galv. water	45	32½	30	32½	40	42½
Galv. steam	40	27½	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/0½	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft. Pipe.		Bends, stock Branches, angles, stock angles.	
2 in. plain	1/2½	9½d.	1/2
2½ in. "	1/3	10½d.	1½/4
3 in. "	1/6½	1/1½	1/8½
3½ in. "	1/11	1/4½	1/11½
4 in. "	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe, angles, stock angles. s. d.	Bends, stock Branches. s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 1½	1 6½	1 10½
2½ in. "	2 6	1 8½	2 4
3 in. "	2 8	1 10½	2 9½
3½ in. "	2 10½	2 4	3 3
4 in. "	3 3	2 7½	3 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe, angles, stock Branches, s. d.	Bends, stock angles. s. d.	s. d.
3 in. per yd. in 9 ft. lengths	3 6	4 3	5 8
	cwt. qr. lbs.		
4 in. "	1 1 20	5 2	8 10
5 in. "	1 2 22	9 0	14 3
6 in. "	2 0 6	10 11	18 1

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars Good merchant quality	11 5 0	to	12 5 0
Staffordshire Market Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 10 0
Steel Bars, Ferro-Concrete quality, basis price	9 0 0	...	10 0 0
Hoop Iron, basis price	11 0 0	...	12 0 0
" Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 10 0	...	12 0 0
" " " 24 g.	13 0 0	...	14 0 0
" " " 26 g.	15 0 0	...	16 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	...	19 5 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets— Ordinary sizes 6 ft. to 9 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes 6 ft. to 9 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	18 10 0	...	19 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	20 10 0	...	21 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	22 10 0	...	24 10 0
Best Soft Steel Sheets, 26 g.	24 0 0	...	25 0 0
Cut Nails, 3 in. to 6 in.	16 0 0	...	17 0 0

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

	£ s. d.
(Delivered in London.)	
LEAD—Sheet, English, 4 lb. and up	19 0 0
Pipe in coils	19 10 0
Soil pipe	22 10 0
Compo pipe	23 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton £9 10 0

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 3
Strong sheet	"	1 0
Thin	"	1 1
Copper nails	"	1 7
Copper wire	"	1 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS

1¼ in.	1½ in.	2 in.	3 in.	3½ in	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

TIN.—English Ingots, 1/4 per lb. SOLDER.—Plumber's 8d., Tinmen's 9d., Blowpipe 10d. per lb.

PAINTS, &c.

			s. d.
Raw Linseed Oil, in pipes	per gallon	...	0 1 10
" " " in barrels	"	...	0 2 1
" " " in drums	"	...	0 2 4
Boiled " " in barrels	"	...	0 2 4
" " " in drums	"	...	0 2 6
Turpentine in barrels		...	0 4 0
" in drums (10 galls.)	"	...	0 4 2

Genuine Ground English White Lead, per ton 44 10 0

(In not less than 5-cwt. casks.)

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

*The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

PAINTS, &c.—(*cont.*)

		£	s.	d.
OUTSIDE WHITE LEAD PAINT. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots	per ton delivered	63	10	0
Red Lead, Dry (packages extra)	per ton	31	10	0
Best Linseed Oil Putty	per cwt.	0	13	6
Filled	"	0	16	6
Gin. XD quality	1kn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths	2½d.	32 oz. fourths	6½d.
15 ,, thirds	3½d.	32 ,, thirds	9d.
21 ,, fourths	3½d.	Obscured Sheet, 15 oz.	3½d
21 ,, thirds	4d.	,, ,, 21 oz.	4½d.
26 ,, fourths	4½d.	Fluted, 15 oz. 7d., 21 oz.	9½d.
26 ,, thirds	6½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
¼ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot. s.	d.
Clear sheet—not exceeding 1 foot	1	0
Do. do. 2 feet	1	3
Do. over 2 feet	1	9
Polished plate—not exceeding 1 foot	1	6
Do. not exceeding 2 feet	3	0
Cathedral—not exceeding 1 foot	1	0
Do. larger sizes	1	6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1	0
1/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2	6

VARNISHES, &c.		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Opal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	6
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	0
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	6
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	6
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	0
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Ounce Black Enamel		0	7	0

A Village Trust

Following upon the floating of the Society for the Protection of Ancient Buildings' Company for the acquisition of ancient monuments and buildings of interest generally, comes the registration of the Ruislip Village Trust, Ltd., with the stated aims :—"To acquire any freehold, leasehold or other properties and rights over any properties for the purpose of maintaining the original character, continued existence and historical interest attaching thereto, etc."

Obituary.

Mr. John Weaver, the last of the founders of the firm Messrs. J. & F. Weaver, has just died in Swansea at the age of 83. He was one of the best-known builders and contractors in South Wales. He started business in partnership with his brother 60 years ago, and constructed many of the public buildings in Swansea, among them being the Central Police Station, the majority of the Corporation schools, several churches (the most recent of which was the new Swansea Roman Catholic Church), and most of the larger buildings in Castle-street, Swansea's most important thoroughfare. To the end, Mr. Weaver, who was a native of Somerset, retained an active interest in the business, despite failing health.

THE SCOTTISH BUILDER

NEW BUILDINGS

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

Dumfries.—OFFICES.—Plans for new municipal buildings to be erected at a cost of £30,000 by Dumfries T.C. in Buccleuch-street to replace the existing buildings.

Dundee.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the Office of the City Engineer :—Brook-street—alterations for J. R. Whyte (architects, Messrs. Bruce, Son & Morton, 10, Whitehall-street); Dalgleish-road—garages for Miss J. White (architects, Messrs. Gordon & Scrymgeour, 7, Ward-road); Kelso-place—shed for T. Hood (architect, Mr. W. M. Patrick, 26, Yeaman-shore); Kelvin-street—sub-station for David T. Dewar, Ltd. (architects, Maclaren, Soutar & Salmond, 15, South Tay-street); Old Glamis-road—garage for R. Battes (architects, Johnston & Baxter, 114, Seagate).

Edinburgh.—BUILDINGS.—Plans for the building of a Miners' Welfare Institute at New-street, Gilmerton, have been passed by the Dean of Guild Court. Warrants were also granted for the following :—Trustees of Assembly Rooms, Edinburgh—alterations at music-hall and assembly rooms, George-street; Governors of the Astley Ainslie Institution—2 lodges and main entrance gateway, at Canaan-lane; City—New north-west wing at City Chambers; Church of Scotland General Trustees—alterations at St. Andrew's Parish Church, George-street; Hepburn Brothers—23 bungalows at Craiglockhart-grove; George Stuart M'Donald—4 bungalows at Redford-drive, Colinton; James Miller—alterations at 84 and 88, Hanover-street and 22 Thistle-street; 21 houses at Ulster-crescent and Ulster-drive; W. Philp—6 houses and 6 garages at Queensferry-terrace and Queensferry-road.

Edinburgh.—ADDITIONS.—A building scheme, which it is estimated will cost about £13,000, for increasing the accommodation at James Gillespie's High School for Girls in Edinburgh, has been considered.

Elgin.—HOUSES.—Elgin Town Council decided to proceed with a new municipal housing scheme on ground in the vicinity of Bishopmill.

Glasgow.—EXTENSION.—The T.C. are to extend the Parkhead bus garage.

Montrose.—ALTERATIONS.—Messrs. R. Pert & Sons, 83, Bridge-street, Montrose, are the builders for alterations to the post office for H.M.O.W.

Port William.—REBUILDING.—Port William Creamery is to be rebuilt

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'.†
Aberdeen	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Arbroath	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Ayrshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2 1/3
Berwickshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/7	†1/2½
Broughty Ferry	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Clackmannanshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Dumbartonshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dumfries	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Dumfriesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dunoon	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
East Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Forfarshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Fort William	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/2
Galashiels	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Glasgow	1/7	1/7	1/7	1/8½	1/7	1/7	1/7	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½
Hawick	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Inverness	1/5	1/5	1/5	1/5	1/5	1/5	1/6	10d.–1/2
Inverurie	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7	1/2
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kincardineshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Kinross-shire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kirkwall	1/5	1/5	1/5	1/6	1/5	1/5	1/7	1/-
Lanarkshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Midlothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½
Peeblesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Perthshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Peterhead	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7	1/2
Renfrewshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Rothesay	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Roxburghshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
St. Andrew's	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Selkirkshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Stirlingshire, West	1/6	1/6	1/6	1/6	1/6	1/6	1/7	1/1
Stornoway	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
West Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 1030.

CURRENT PRICES FOR BUILDING WORK IN LONDON

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	"	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	30	0
Add if in underpinning in short lengths	" "	6	0
Add if in floors 6 in. thick	" "	2	6
Add if in beams	" "	3	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	"	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	5	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	"	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	0

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0
Chilmark stone fixed complete	" "	17	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	4	6
Do. joists	" "	5	0
Do. roofs, floors and partitions	" "	5	6
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	33/6	38/-	43/-	70/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	9
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.	—	42/6	50/-	57/6
Do. tongued and grooved	"	—	47/-	56/-	64/-
Do. matchings	"	44/-	49/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	"	3	9

DOORS

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/3	2/5
Four-panel Do.	"	2/4	2/6	2/9
Two-panel moulded both sides	"	2/6	2/9	2/11
Four-panel Do. Do.	"	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued		2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each		0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run		0	9
Mahogany handrail average, 3 in. × 3 in.	" "		5	0
Add if ramped	" "		12	0
Add if wreathed	" "		24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/-
Ogee Do. Do.	"	1/6	1/9	2/3	2/9
Rain-water pipes with ears	"	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	"	1/6	1/10	2/9	3/3
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	42	0
Do. Do. in flats	"	41	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	1/1	1/7	1/10	3/-	3/6	—
Do. service .... "	1/6	2/-	2/5	3/6	—	—
Do. soil ..... "	—	—	—	—	—	6/-
Bends in lead pipe each	—	—	—	—	3/-	6/6
Soldered stop ends "	1/-	1/4	1/9	2/6	3/2	—
Red lead joints .... "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/6	3/-	3/6	4/4	5/6	7/9
Lead traps and cleaning screws "	—	—	—	12/7	17/6	—
Bib cocks and joints "	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints "	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	5
Do. Do. Sirapite	" "	2	8
Do. Do. Keen's	" "	3	10
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc. for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	3

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
⅛-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Imports of Cement into Malaya.

Out of a total of 228,936 tons of cement imported into Malaya during 1930, 75,235 tons originated from the United Kingdom, 71,430 tons from Japan, and 43,795 tons from Denmark.

A Severed Connection.

We are informed that the connection between Messrs. Marryat & Scott, Ltd., and Messrs. John Bennie, Ltd., has been severed, and that the resignation of Mr. Murray D. Scott and Mr. Howard Marryat from the board of the latter company has been accepted.

Moving of a Fireclay Depot.

The Leeds Fireclay Co., Ltd.'s, London depot has been moved from King's Cross to the L.M. and S. Goods Station, King's-road, St. Pancras, N.W.1 (telephone North 2085). The St. Pancras depot has been designed with the one object of giving to architects, builders and merchants the finest service in London.

The Zoo, Whipsnade Park.

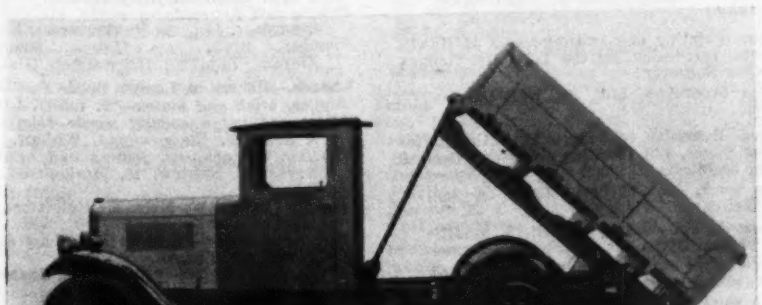
Some of our readers may have wondered why, in the last advertisement of Messrs. Kerner-Greenwood & Co., Ltd., illustrated by a photograph of the above building in which their waterproofer was used, their familiar brand word "Pudlo" was mis-spelt Pudlow. This was due to a printer's error which, unfortunately, was not detected until we had gone to press.

Sukkur Barrage.

The Sukkur Barrage Irrigation project is probably the biggest job of its kind ever attempted, and its success has been largely made possible by the use of mechanical excavators. Messrs. Ruston-Bucyrus, Ltd., Lincoln, England, have prepared a brochure of facts and figures concerning this scheme. Readers who are interested in excavation work and costs will find this publication of interest. Copies will be sent on request provided the applicants refer to *The Builder*.

A Tipping Truck.

Contractors and builders on a smaller scale will be interested in details which Messrs. Singer & Co., Ltd., of Coventry, have issued concerning their 25-cwt. drop-sided truck. This light transportation vehicle, an illustration of which appears on this page, is built for continuous hard work. It is strong, speedy and reliable. The six-cylinder engine develops 45 b.h.p. and generates ample power for its recommended loads. Chassis is designed for dependability, economy, and ease of maintenance; the lubrication, cooling and ignition systems being accordingly simplified. Singer industrial motors are built to conform with all statutory regulations governing this type of vehicle. As all superfluous deadweight is eliminated, the carrying capacity is considerably in excess of many similar-sized trucks. This enables owners to secure the utmost haulage revenue on each trip. In this connection it is important to remember that the 25-cwt. drop-sided truck fills the requirements of those who need a medium-sized vehicle that will transport goods more economically than is possible when, as often happens, the load to be conveyed only partially fills an ultra-large truck. An oversize truck means increased outlay in maintenance due to its extra weight, and decreased earning power through not being loaded to its full capacity. Full details of specifications, etc., can be obtained upon request.



A Singer 25-cwt. Tipping Truck.

Sectional Partitioning.

We learn that the Merchant Trading Co., Ltd., have taken over the wholesale distribution of the "Miracle" sectional partition, a new form of sub-dividing office, factory and warehouse premises which is of British origin, design and manufacture. The "Miracle" partition is, in effect, the old form of wood and glass partitioning dissected and standardised into a series of component

"Miracle" Partitioning.

sections, uniform in design, by the use of which any required length or height can be divided off. The partition, when erected, is capable of immediate dismantling or rearrangement with a minimum of dilapidation to property, and deliveries from large stocks can be made immediately on receipt of instructions. Stocks are carried to an extent of 50,000 superficial feet in deal, and the partitioning can be manufactured in various grades of hardwood to suit special requirements. A high standard of workmanship is maintained throughout the manufacture, and mass production enables the material to be sold at, we learn, a low price. The Merchant Trading Co., Ltd. (who are already known as distributors of "Metco" and "Woco" doors and Celotex) have offices at 52, Bishopsgate, E.C.2.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.

Annfield Plain.—Headquarters for the local branch of the British Legion:—
W. Mitchell, Annfield Plain.

Ashcombe.—Alterations and additions to the "Newmarket Inn," for Messrs. Tamplins (Brighton), Ltd.:—
*E. Hammond, Lewes.

Axminster.—Four houses at Colyton, for the R.D.C.:—
*Warren & Carnell, Colyton £402 17 6 each

Barnstaple.—Bath, children's boating pool, etc., for the T.C.:—
*W. H. Smith & Co., Bristol £4,867 16 3

Barrow-in-Furness.—Additions to bungalow, at the Cemetery Nursery, for the T.C. Mr. W. A. Chislett, Town Clerk:—
*Moody & Thompson, 159, Blake-street, Barrow-in-Furness £129

Bath.—Low pressure hot water heating installation and domestic hot water at Southdown schools, for the City Council:—
*G. Carey & Son £1,611 17 6

Bath.—Extensions to Bear Flat sub-station, for the City Council:—
*Chancellor & Son £106 10

Beeston.—Junior mixed infants' school for 192 scholars at Glebe-street, for the Notts E.C.:—
*J. Cawley, Nottingham £1,910

Bilston.—144 houses and two shops at Darlaston-lane, for the U.D.C.:—
*J. Hickin & Sons, Willenhall.

Birmingham.—School for juniors and infants, on the Wesley Castle estate, for the E.C. Mr. H. T. Buckland, F.R.I.B.A., architect, Norwich Union-chambers, Congreve-street, Birmingham:—
*Thomas Lowe & Sons, Ltd., Curzon-street, Burton-on-Trent £19,687

Birmingham.—Two temporary classrooms at the Ryland-road Council school, for the E.C.:—
*Grosvenor Workman, Birmingham £629 10

Birmingham.—Alterations and extensions to pavilion and stable block at Hobmoor-road playing field, for the E.C.:—
*Morris, Jacombs & Sons, Ltd., Hobmoor-road, Small Heath, Birmingham £445

Birmingham.—New premises as a temporary extension of the Central Technical College on a portion of the Municipal Car park, for the E.C.:—
Building work—
*Lowe & Sons, Ltd., Curzon-street, Burton-on-Trent £8,545
Heating installation—
*J. Jackson & Co., Birmingham 550
Lighting installation—
*J. H. Payne & Co., Birmingham ... 187

Birmingham.—Offices in Bennetts-hill, for the Scottish Widows' Fund & Life Assurance Society, 9, St. Andrews-square, Edinburgh. Messrs. Peacock & Bewlay, F.R.I.B.A., architects, 83, Colmore-row:—
Main contractors—*John Bowen & Sons, Balsall Heath, Birmingham.
Steelwork—*C. Wade & Co., Ltd., Aston-road, Aston, Birmingham.

Bolton.—80 non-parlour type houses on the Higher Swan-lane estate, for the Corporation. Housing Director, Westminster Bank-chambers, Old Hall-street North:—
*Leigh Bros., Lted., Bolton.

Bolton.—Shops forming shopping centre in Bridge-street. T. E. Smith & Sons, architects, Central-chambers, Folds-road:—
*Wm. Townson & Sons, Ltd., Bolton.

Bridlington.—Conveniences on the South Cliff, for the T.C. Borough Engineer and Surveyor, 23, Cliff-street:—
*Jacques & Greeves, Balby, Doncaster.

Cadishead.—Sunday school for the members of the Congregational Church. Mr. J. A. Brew, architect, Albert-street:—
*T. E. and J. A. Brew, Cadishead.

Cambuslang.—Twenty-four houses at Overton-road, for the Lanarkshire C.C. Mr. Peter C. Smith, County Housing Architect, Hamilton:—
Mason and brick works, etc.—*Thos. Anderson & Sons, 48, Auchingamont-road, Hamilton.
Plaster work, etc.—*W. Walker & Sons, Ltd., 8, Overton-road, Clarkston.
Electric lighting—*A. Robertson, Woodlands-road, Glasgow.
Slater work, etc.—*S. Holmes, 46, Stonelaw-road, Rutherglen.
Iron fencing works—*W. Bain & Co., Ltd., Lochrin Ironworks, Coatbridge.
Joinery and ironmongery works, etc.—*Munro & Janor, 10, Spindlehome-road, Uddington.
Plumber work, etc.—*Geo. Martin 8, Windmillhill-road, Motherwell.
Painter work etc.—*Hillin & Allan, Bothwell.

Basford.—Houses, for the R.D.C. Mr. Stephen Maylan, engineer and surveyor :—

	Selston—14 Houses. Jacksdale.		*Selston—10 Houses. Portland-road.*		*Kimberley. 30 houses.*
	Tender "A"	*Tender "B"*	*Tender "A"*	*Tender "B"*	
Allcock & Sisson, Bill Top, Eastwood	£5,000 0	*£5,063 0	£3,552 0	£3,600 0	£10,595 0
G. Brentnall, Riddings	5,484 10	5,616 6	3,830 8	3,930 10	—
Donnelly & Sons, Kimberley	—	—	3,912 0	4,000 0	12,329 0
O. Gration, Belper	—	—	3,974 0	4,011 0	—
Harper & Green, Nottingham	5,137 0	5,267 0	3,617 0	3,717 0	10,700 0
R. Hustwayte, Nottingham	5,050 0	5,350 0	3,625 0	3,805 0	10,900 0
T. S. Housley, Jacksdale	5,472 10	5,528 10	3,849 12	3,892 13	—
J. Minkley, Brinsley	5,096 0	5,231 0	3,590 0	3,684 0	—
D. Rowland, Kimberley	—	—	—	—	10,635 0
Shaw & Co., Kimberley	—	—	—	—	12,273 0
Sisson & Son, Langley Mill	5,057 0	5,128 0	3,505 10	*3,571 0	*10,387 10
G. Shipman, Riddings	—	—	3,663 2	3,694 5	—
Taylor & Parkin, Alfreton	5,791 0	5,864 17	4,090 0	4,142 15	—
J. Wildman, Langley Mill	4,608 0	4,713 7	3,384 0	3,436 4	—
Wm. Wood, Heanor	5,281 0	5,365 0	3,776 6	3,836 0	11,553 0

Carlton.—Houses, for the U.D.C. Mr. J. A. West, A.R.I.B.A., surveyor, Free Library, Manor-road :—

20 houses, Primrose-street—
*Harper & Green, Ltd., Carlton £5,925

10 houses, Curzon-street—
*H. Loach & Son, Carlton 3,520

Carmyle.—Thirty-two houses at Carmyle site, Station-road, for the Lanarkshire C.C. Mr. Peter C. Smith, County Housing Architect, Hamilton :—

Mason and brick works, etc.—*Thos. Anderson & Sons, 48, Auchingamont-road, Hamilton.
Joinery and carpentry works, etc.—*Munro & Janor, 10, Spindlehome-road, Uddingstone.
Slater work, etc.—*A. C. Whyte & Co., Ltd., 170, Hope-street, Glasgow.
Plumber work—*John Stephen, 19, Park-road, Hamilton.
Plaster work, etc.—*W. Walker & Sons (Glasgow), Ltd., 231, Eglington-street, Glasgow.
Painter work—*J. C. Sweet, 47, Baillies-causeway, Hamilton.
Electric lighting—*Alexander Robertson, Woodlands-road, Glasgow.

Catterick.—The following works contracts have been placed by the War Office during the week ended May 28 :—

Erection of accommodation for M.T. Co., R.A.S.C., and married soldiers' quarters, at the camp, G. McDougill & Sons, Darlington.

Chester.—Seven additional shops upon the Handbridge estate, for the T.C. City Surveyor :—

*T. Boddy, Chester £7,896

Chester.—Improvement of the Fish Market, for the T.C. City Surveyor :—

*John Mayers, Sons & Co., Ltd., Chester £340

Chester.—12 parlour-type houses upon the Eaton-road estate, for the T.C. City Surveyor :—

*T. Boddy, Chester £5,410

Chester.—Improvement and reconstruction of Lache-lane, for the T.C. City Surveyor :—

*J. W. Flather, Ellesmere Port £19,539 17 10

Chester.—Additional shelter and lavatory accommodation for women at the Water Tower Grounds, for the T.C. City Surveyor :—

*W. Vernon & Sons, Ltd. £155

Chesterfield.—Radium room at the Institution for the Board of Management of the Chesterfield and North Derbyshire Royal Hospital, Holywell-street. Messrs. Jackson & Fryer, architects, 6, Stephenson-place :—

*C. Vallance, Mansfield.

Dagenham.—Electrical installation at Chadwell Heath Library, for the U.D.C. :—

*Alpha Manufacturing & Electrical Co., Ltd., 26, High-road, Balham, S.W.12.

Dewsbury.—Secondary school for girls near Halifax-road, for the T.C. Mr. T. Blakeley, A.R.I.B.A., Borough Surveyor :—

Joiner—*W. West, Highgate, Dewsbury.
Plumber and glazier—*F. Newsome, Ltd., Dewsbury.
Plasterer—*W. Lockwood, Batley.
Slater—*J. M. Thornton's Sons, Heckmondwike.
Painter—*A. & H. Ruddleaden, Dewsbury.
Ironfounder—*J. Austin & Sons, Ltd., Dewsbury.

Didsbury.—17 flats in Fog-lane and Sussex-lane, for the Roughcast Building Co., Ltd., 27, King-street, Manchester :—

*H. O. Mortimer, Cheadle Hulme.

Dudley.—First section of the new Technical College, for the T.C. :—

*W. J. Whittall & Son, Ltd., Birmingham £79,899

East Kilbride.—Thirty-two houses at Maxwell-street site, for the Lanarkshire C.C. Mr. Peter C. Smith, County Housing Architect, Hamilton :—

Mason and building works, etc.—*Thos. Anderson & Son, 48, Auchingamont-road, Hamilton.
Joinery and carpentry works, etc.—*D. M. Munro, Cambuslang.
Slater work, etc.—*S. Holmes, 43, Stonelaw-road, Rutherglen.
Plumber work, etc.—*Duncan Johnstone, 72, Waterside-street, Strathavon.
Painter work—*Hillon & Allan, Bothwell.
Electric lighting—*K. McAlpine & Co., Glasgow.

Edinburgh.—Installation of electric lighting and electric heating in Pilton hospital, for the T.C. Engineer's Office, Dews-place :—

‡Malcolm & Allan, Ltd., 17, North-street, Andrew-street, Edinburgh.

Edinburgh.—Construction of a sewer at Craig-Crook-road, for the T.C. Burgh Surveyor, 329, High-street :—

*W. & J. R. Watson, Ltd., 48, Iona-street, Edinburgh.

Edinburgh.—Nursery school, at St. John's-street, for the National Committee for Training of Teachers. Mr. Frank Wood, architect, 73, George-street :—

Brickwork—
*Scott & Brown, 3, Barclay-place ... £845 0
Carpentry and joiner work—
*Geo. Hardie & Son, 18, Chapel-street 993 10
Plumber work—
*Hugh Twaddle & Son, Ltd., 130, London-road, Glasgow 324 0
Slater work—
*Robert Kidd, 29, Barclay-place 160 2
Plaster work—
*D. & J. Borthwick, East Silvermills-lane 393 0
(Remainder of Edinburgh.)

Erpingham.—Public convenience at West Runton, for the R.D.C. :—

*A. G. Brown £262

Finedon.—For (*a*) 10 houses, and (*b*) 8 houses, for U.D.C. Mr. E. J. Lewis, surveyor :—

(*a*)—*C. Childs & Co., Finedon £4,080
(*b*)—*R. Marriott, Rushden 7,290

Gateshead.—Garage for Messrs. H. Binns & Son, Ltd., Newcastle. Messrs. Cackett, Burns, Dick, architects, 21, Ellison-place :—

*Stephen Easten, Milburn House, Newcastle.

Gedling.—Infants' school at Westdale-lane, for the Notts E.C. :—

*J. Cawley, Nottingham £1,445

Glasgow.—Electrical work at Cloberhill school. Mr. William McCaig, architect, 129, Bath-street :—

*Walter Bennett, Ltd., 10, Blythes-wood-street £312 9 11

Glasgow.—Electrical installation at Camphill House and Museum, for the T.C. :—

*John C. Hall, Battlefield-road, Langside.

Glasgow.—Painting new police headquarters at St. Andrews-street, for the T.C. :—

*James McLuskie, Ltd., 155, Eglinton-street, Glasgow £1,634 2 1½

Glasgow.—Painting at Hillhead (New) High School, for the E.C. :—

*W. McKerracher, Deewater, Glasgow £1,601 2 2

Glasgow.—Catholic hall, Cumberauld-road. Mr. Donald J. Cameron, architect, 183, West George-street :—

*Conversions, Ltd., 13, Charles-street, Glasgow.

Glasgow.—New dispensary for Public Health Dept., for the T.C. City Engineer :—

*Morrison Dunbar, 360-394, Gallowgate, Glasgow.

Glasgow.—Painting new waiting-rooms at Hawkhead Mental Institution, for the T.C. Mr. Thomas Somers, City Engineer :—

*Cosmos Decorators, Ltd., 245, West George-Street.

Glasgow.—Extension to bakery at Craigton, for Galbraiths Stores, Ltd., Paisley. Messrs. Cook & Hamilton, architects, Gilmour-street, Paisley :—

Builder work, etc.—*Robert Morton & Son, 2, Weir-street, Paisley.
Slater work, etc.—*John Gemmell, 5, Shuttle-street, Paisley.
Steel structural work—*Fleming Brothers, 65, Bath-street, Glasgow
Glazing work, etc.—*Pennycook Patent Glazing Co., West Regent-street, Glasgow.

Hathersage.—Extensions to the Hathersage Memorial Hall, for the Memorial Hall Committee. Mr. W. E. Clarke, architect, Sunny Cottage, Hathersage :—

*G. Percival, Hathersage, near Sheffield.

Hartshead.—For various trades required for the alterations and extensions to the St. Peter's Church Sunday school. Messrs. Abbey & Hanson, architects, 11, Cloth Hall-street, Huddersfield :—

Mason's work—*Tom Drake, Littletown, Liversedge.
Joiner's work—*H. Wooller & Son, Roberttown, Liversedge.
Plumber's work—*J. W. Bancroft, Cleckheaton.
Electrician's work—*Herbert Senior, Mirfield.
Slater's work—*H. Castle & Son, Ltd., Brighouse.
Plasterer's and slater's work—*Fred Robinson, Gomersal, near Leeds.
Painter's work—*Fred Heaton & Son, Paddock, Huddersfield.

Hayes.—New school, for the Middlesex E.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Great George-street, S.W.1 :—

*J. Harrison & Co., Camberwell £4,813

Helston.—Twelve houses at Porthleven, in the parish of Sithney, for the R.D.C. Surveyor :—

	Parlour type.	*Non-parlour type.*
J. H. Lobb, Mevagissey	£6,106 0	£5,068 0
Alfred Blewett & Son, St. Mabyn	5,200 0	4,348 0
Richard J. Williams, Praze, S.O. Crowan	5,245 0	3,995 0
Percy Williams, Perranwell	4,800 0	4,500 0
W. M. Lugg, Camborne	5,239 0	4,861 0
N. J. Jory & Son, Hayle (per house)	450 0	360 0
Chamberlain & Bassett, Falmouth (per house)	405 4	355 6
*Ireland & Goldsworthy, Carnhell, Gwinear, Hayle	4,606 15	3,886 15

Hibaldstow.—Enlargement of playground and new out-offices at the Hibaldstow Council school, for the Lindsey C.C. Director of Education, 286, High-street, Lincoln :—

	Asphalt.	*Concrete.*
J. & W. Jeffery, Hibaldstow	£753 15 8	£778 5 8
J. Tuxforth & Son, Louth	753 0 0	767 16 0
H. Whatmough, Hibaldstow	672 4 0	732 4 0
W. Pallister, Scunthorpe	698 0 0	725 0 0
C. Simons, Cleethorpes	628 2 9	643 2 9
R. M. Phillips & Son, Brigg	672 0 0	644 0 0
T. George & Son, Hibaldstow	553 8 6	598 0 0
E. J. Routh, Winteringham	565 10 0	*577 2 6

Holmfirth.—New men's ward at the Holme Valley Memorial Hospital, for the Board of Management. Mr. P. N. Brown, L.R.I.B.A., architect, Holmfirth, near Huddersfield :—

Masons—*F. & J. F. Marsden, Holmfirth.
Carpenters and joiners—*J. H. Bailey & Son, Holmfirth.
Plumbers and glaziers—*F. Tinker, New Mill.
Roof tiler—*Pickles Bros., Leeds.
Plastering—*J. Haigh, Holmfirth.
Electrician—*F. Platt, Holmfirth.
Heating and engineers—*W. Tolson & Son, Holmfirth.

Huddersfield.—Alterations to the "Clothiers Arms," Kirkgate. Messrs. Abbey & Hanson, architects, 11, Cloth Hall-street :—

Mason's work—*J. Wimpenny & Co., Linthwaite.
Joiner's work—*Wrigley & Beaumont, Linthwaite.
Plumber's work—*H. Littlewood, Birkby, Huddersfield
Concreter's work—*Jno. Hinchcliffe, Huddersfield.

Kettering.—Shop premises in Gold-street and Silver-street, for Messrs. Montague Burton, Ltd., Hudson Woollen Mills, Hunslet-road, Leeds. Mr. Harry Wilson, architect, 81, North-lane, Roundhay :—

*R. West, Northampton.

Kilsyth.—New suite of halls, etc., for Burns Parish Church. Mr. A. Gardner McLean, architect, 134, Bath-street, Glasgow :—

Brick and building works, etc.—*W. Hamilton & Sons, Townhead-street, Kilsyth.
Plaster work—*Somerville, Luggiebank-road, Kirkintilloch.
Painting and decorating—*Martin & Co., Braehead-street, Kirkintilloch.
Slater works and rough casting—*D. Logie & Son, Parkfoot, Kilsyth.
Joinery and ironmongery works, etc.—*Wilson & Gardner, Ltd., 24, Newton-street, Kilsyth.
Plumber work, etc.—*James Somerville (Govan), Ltd., 27, Helen-street, Glasgow.

Lanark.—Houses at Lanark Police Station site :—

Digger, brick and mason—*J. Reilly, Lanark.
Slater and rough casting works—*McCartney & Reid, 36, Glasgow-road, Wishaw.
Glazing, ironmongery, joinery and carpentry works—*J. Shirlaw, 16, Market-road, Carluke.
Painter work—*W. Melrose, High-street, Carluke.
Electric lighting—*Stewart H. Shaw & Co., Bloomgate, Lanark.
Sanitary installation—*T. Glaister, Gowanbrae, Lanark.

Lancaster.—Operating theatre, small wards, etc., at the Royal Lancaster Infirmary. Messrs. Austin & Paley, A.R.I.B.A., architects, Castle Park :—

Joiner—*W. & I. Peill.
Slater and plasterer—*J. Cross & Sons.
Plumber, glazier and painter—*S. B. Wilding & Sons, Ltd.
(All of Lancaster.)

Lancing.—New school, for the West Sussex C.C. :—
*F. W. Hill £5,022

Leeds.—Sanitary accommodation at the Georgian Café in Great George-street :—
*W. T. Pearson Ltd.

Leeds.—Reinforced concrete coal bunkers at the Victoria Bridge wharf, for the Leeds Industrial Co-operative Society, Ltd. :—
*Yorkshire Henebique Contracting Co., Ltd.

Leeds.—Fireproof floor of the new civic buildings, for the T.C. :—
Kleine & Co., Ltd., New Oxford House, Hart-street, London... £15,082 19 8

Lewes.—Alterations and additions at High-street, for Messrs. Clarks Bread Co. :—
*E. Hammond, Lewes.

Little Stanmore.—Council school, in St. David's-drive, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Gt. George-street, S.W.1 :—

H. Knight & Son, Tottenham	£26,568
C. J. Newby & Bros., Southgate	25,676
William Lacey, Hounslow	25,295
G. H. Denne & Son, Ltd., London...	25,247
A. Fairhead & Sons, Ltd., Enfield ...	24,983
Y. J. Lovell & Son, Gerrards Cross	24,657
C. Miskin & Sons, Ltd., St. Albans	24,599
W. J. Dickens, Ealing	24,500
J. Laing & Son, Ltd., Mill Hill ...	24,242
W. S. Try, Uxbridge	24,086
‡W. Lawrence & Son, Ltd., London	23,890

Liverpool.—Extensions to works in Dryden-street for the Automatic Telephone Manufacturing Co., Ltd., engineers, Strowger Works, Milton-road, Old Swan. Mr. W. P. Horsburgh, F.R.I.B.A., architect, 16d, Exchange-buildings, Exchange-street :—
*J. A. Milestone & Sons, Ltd., Wallasey, Cheshire.

Liverpool.—Public elementary school on the Highfield estate, Broadgreen, for the T.C. :—
*John Lewis, Liverpool £52,765

Liverpool.—Reconstruction of the bridge carrying the railway over Philbeach-road, for the T.C. :—
*T. Wrigley, Ltd., Manchester £2,350 16 3

Liverpool.—Erection of the Grandison-road Council school for senior boys, for the T.C. :—
*Rimmer Bros. £20,997

Liverpool.—18 shops and residences, and 8 lock-up shops, at Scargreen-avenue, Norris Green estate, for the T.C. Director of Housing :—
*Unit Construction Co., Ltd., Adelphi Terrace House, 1, Robert-street, London, W.C.2 28,314

Liverpool.—Supply and delivery of 665 lin. yd. of wrought iron railings, for use in connection with the construction of Banks-road, Garston, together with two pairs of gates, for the T.C. :—
*W. Gratrix & Sons, Walkden..... £408 10

Liverpool.—Electric sub-station in Eaton-road, West Derby, for the T.C. :—
*Rimmer Bros., Dalton-street, Liverpool £993 10

Liverpool.—Hacking out and cementing walls of hospital wards in the Bungalow block at the Walton Hospital, for the T.C. Land Steward and Surveyor :—
*A. R. Ball & Co., Liverpool £450

Liverpool.—8 shops, with hall and library over, and a sub-station, on the Dovecot estate, for the T.C. Director of Housing :—
*J. Jones & Sons (Woolton), Ltd., of Hillfoot-road, Woolton, Liverpool £11,895

Liverpool.—Waiting room, convenience, etc., at the juction of Mather-avenue and Woolton-road, Springwood estate, for the T.C. Director of Housing :—
*J. Jones & Sons (Woolton), Ltd., of Hillfoot-road, Woolton, Liverpool... £1,795

Liverpool.—Additional school of light construction on the Wellesbourne-road site, for the T.C. :—
*Tysons (Contractors), Ltd. £5,998

Liverpool.—Supplying and fixing iron railings to the boundary wall on the river front at the Port Sanitary hospital, New Ferry, for the T.C. Land Steward and Surveyor :—
*W Gratrix & Sons, Walkden £161 5

Liverpool.—Painting work at the Belmont-road Institution, for the T.C. Land Steward and Surveyor :—
*Waring & Gillow, Ltd., Liverpool £658 17 6

Liverpool.—Holt secondary school, for the T.C. :—
*Henry Boot & Son, Ltd

Liverpool.—Extension to the Shell-road Council school, for the T.C. :—
*William Moss & Sons, Ltd. £8,397

Liverpool.—Alterations to the Daisy-street Council school, for the T.C. :—
*Rimmer Bros. £8,260

Liverpool.—School clinic and child welfare centre, at Townsend-avenue, Norris Green estate, for the T.C. Director of Housing :—
*J. Jones & Sons (Woolton), Ltd., of Hillfoot-road, Woolton, Liverpool... £4,250

¶London.—Tenders accepted by H.M.O.W., for the week ending May 30 :—
Minehead Telephone Exchange—erection—Nicks, Bros., Bradninch.
Garage at Cardiff Head Post Office—erection—Tucker Bros., 181-3, Broadway, Cardiff.
Montrose Post Office—alterations, etc.—R. Pert & Sons, 83, Bridge-street, Montrose.
H.M. Stationery Office, Hollinwood—painting—H. Gladwell & Co., 43, Merefield-street, Rochdale.
Blackpool Head Post Office—heating, etc.—J. Combe & Son, Ltd., 103, North Hanover-street, Glasgow.
Houses of Parliament—erection, etc., of timber gantries—Galbraith, Ltd., 71, Waterloo-street, Camberwell, S.E.5.
Tulse-hill Telephone Exchange—heating—Cannon & Hefford, Stanbury-road, Peckham, S.E.15.
Lee-on-Solent, Telephone Exchange—erection—John Croad, 98, High-street, Gosport.

London.—Repairs and repainting at the Blackfriars and Cannon-street subways, for the City Corporation :—

W. H. Wagstaff & Son	£416 0
Holland & Hannen & Cubitts, Ltd.	409 0
F. J. Howard	393 0
Falkus Bros., Ltd.	339 10
*W. G. Beaumont & Son	318 0

Long Eaton.—68 non-parlour type, for the U.D.C. Mr. H. Raven, architect, Town Hall :—

Holmes & Sons, Ltd., 815, London road, Derby	£27,814
H. Orton & Sons, Ltd., Craig-street, Long Eaton	23,760
W. J. Simms, Sons & Cooke, Ltd., 3, Weekday Cross, Nottingham	23,396
J. E. Jervis, Ltd., Wilsthorpe-road, Long Eaton	23,120
H. Hunt & Sons, Nottingham-road, Ripley	22,375
Bosworth & Lowe, Haydn-road, Nottingham	22,362
E. E. Stevens, Breedon-street, Long Eaton	22,295
*F. Perks & Son, Ltd., Bridge-street, Long Eaton	22,056

Lower Feltham.—Elementary school, at Ashford-road, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Gt. George-street, S.W.1 :—

H. Knight & Son, Tottenham	£19,553
W. J. Drinkwater & Sons, Feltham	18,930
C. J. Newby & Bros., Southgate ...	18,699
William Lacey, Hounslow	18,673
G. Godson & Sons, Ltd., Kilburn...	18,637
G. Challis & Co., Ltd., Brentford...	18,487
L. & W. Whitehead, Ltd., London...	18,375
W. S. Try, Uxbridge	18,310
Y. J. Lovell & Son, Gerrards Cross	18,244
Fassnidge & Son, Uxbridge	18,047
‡W. J. Dickens, Ealing	17,900

Maidenhead.—30 houses on the south side of Boyn Valley-road, for the T.C. :—

W. Creed & Co., Maidenhead	£9,978
F. Pitt, Taplow	9,560
Halfacre & Young, Maidenhead	9,432
Cripps & Green, Maidenhead	9,420
*Jones & Sons, Maidenhead	9,325

Manchester.—Strengthening high-level approaches and rebuilding portion of river wall at Water-street depot, for the Depots Sub-Committee :—
*A. Monk & Co., Ltd., Warrington.

Manchester.—(1) Wrought-iron railings at Green End municipal school; (2) railings to basement steps of Queen-street municipal infants' school; (3) railings, etc., at the Burnage High School for Boys; (4) railings, etc., at the Gorton Mount municipal school, for the E.C. :—
(1) *Gorton & Blakemore, Atherton.
(2) *T. Blackburn & Sons, Ltd., Preston.
(3) *Gorton & Blakemore, Ltd., Atherton.
(4) *Blackburn & Sons, Ltd., Preston.

Manchester.—(1) Electrical installation at Gorton Mount municipal school; (2) roof glazing at the Mauldeth-road municipal school; (3) electrical alterations to the Southall-street municipal school; (4) electrical alterations at the Abbott-street municipal school, for the E.C. :—
(1) *John Collier & Co., Ltd.
(2) *W. H. Heywood & Co., Ltd.
(3) *W. H. Smith & Co.
(4) *A. Loudon.
(All of Manchester.)

Manchester.—Rebuilding the "Rose and Crown" public-house at Rigel-street, Ancoats, for Messrs. Joshua Tetley & Son, Ltd., The Brewery, Hunslet-road, Leeds. Messrs. Kitson, Parish, Ledgard & Pyman, F.R.I.B.A., architects, Vicar-lane, Leeds :—
Brickwork—*Campions & Sons, Ardwick.
Joiners—*Tinker & Young, Manchester.
Plumber—*K. Crabtree, Manchester.
Slaters—*E. C. Kesteven, Leeds.
Painters—*Jones & Jackson, Manchester.

Manchester.—Conversion of 5, Talbot-road, Old Trafford, into parcels office, for the Transport Committee. Mr. Henry Price, A.R.I.B.A., City Architect :—
Builder—*A. Fenton.
Plumber and glazier—*F. Hewerdine.
Plasterer and painter—*A. Hogg, Ltd.
Smith and ironfounder—*H. Peers & Co., Ltd., Bolton.
(Remainder of Manchester.)

Mexborough.—34 houses at Hurstgate extension, for the U.D.C. Mr. G. F. Carter, surveyor :—
*G. W. Meanley & Sons, Mexborough, near Rotherham £10,268

Monkseaton.—Remodelling caretaker's house at the Village School, for the Northumberland E.C. Mr. W. W. Tasker, County Architect, 17, Claremount-place, Newcastle :—
*A. R. Robertson, Ridley-avenue, Blyth £486 16 7

Morecambe.—Alterations to shelter on the Central Pier, for the Parks Committee. Mr. P. W. Ladmore, A.M.I.C.E., engineer and surveyor :—
*Bell & Isaacs, Morecambe.

Newarkhill.—Housing at Newarkhill site, for the Lanarkshire C.C. :—
Brick and building works—*T. Anderson & Sons, 48, Auchingamont-road, Hamilton.
Plumber work, etc.—*Thos. Coats, 100, Brandon-street, Motherwell.
Slater work, etc.—*S. Holmes, 43, Stonelaw-road, Rutherglen.
Joinery and Ironmonger's works, etc.—*D. & W. Young, Newarkhill.
Plaster work—*F. McGowan & Co., Carfin.
Painter work—*S. McCormack & Son, Newarkhill.

Newcastle.—New stand, to seat 5,000, for the Newcastle Historical Pageant, in Leazes Park :—
*Brown & Tawse (Tubes), Ltd., Newcastle.

Newmains.—Forty-eight houses at West Grindledyke site, for the Lanarkshire C.C. Mr. Peter C. Smith, County Housing Architect, Hamilton :—
Mason and building works, etc.—*T. Anderson & Son, 48, Auchingamont-road, Hamilton.
Joinery and ironmongery works, etc.—*D. & W. Young, Newarkhill.
Slater work, etc.—*A. W. Black, 39, Campbell-street, Wishaw.
Plumber work, etc.—*Thos. Coats, 100, Brandon-street, Motherwell.
Plaster work, etc.—*A. W. Black, 39, Campbell-street, Wishaw.
Painter work—*James C. Sweet, 47, Baillies-Causeway, Hamilton.

North Wembley.—Junior mixed and infants' school in Spencer-road, for the Middlesex C.C Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Great George-street, S.W.1 :—

H. Knight & Son, Tottenham	£17,354
Albert Monk, Edmonton	16,987
C. J. Newby & Bros., Southgate ...	16,987
A. & B. Hanson, Ltd., Southall ...	16,866
Y. J. Lovell & Son, Gerrards Cross	16,775
G. Challis & Co., Ltd., Brentford...	16,675
W. S. Try, Uxbridge	16,661
W. J. Dickens, Ealing	16,570
G. Godson & Sons, Ltd., Kilburn ...	16,486
‡Fassnidge & Son, Ltd., Uxbridge ...	16,327

Northallerton.—Extensions to the Rutson hospital, for the Board of Management :—
*J. H. Willoughby.
(Estimated cost about £6,000.)

Orrell.—Eight houses in Moor-road, for the U.D.C. Mr. P. Pigot, surveyor :—
*H. Hartley, Rainford, near St. Helens, Lancs ..... (per house) £328 10

Portmadoc.—Shopfront at New Cinema :—
*A. Edmonds & Co., Ltd., Constitution Hill, Birmingham.

Portsmouth.—Erection of Kent-street handicraft centre, for the T.C. :—

J. Croad, Ltd.	£1,950
Tanner Bros.	1,884
Jordan, Ltd.	1,856
E. & A. Sprigings	1,800
John Lay & Co.	1,774
Green & Foley	1,720
S. Salter, Ltd.	1,695
*W. Ruston	1,365

Portsmouth.—Internal redecoration of Southsea Castle Teahouse, for the Corporation. City Engineer :—

Tanner Bros., Southsea	£418 0 0
T. L. Nerman & Son, Southsea ...	318 0 0
Frank Bevis, Ltd., Portsmouth ...	309 18 6
*King & Milne, 31, Cornwall-road, Portsmouth	265 0 0

Prestbury.—Reconditioning the chapel, for the Trustees of the Wesleyan Chapel :—
Decoration—*Barker & Sons, Macclesfield.
Joinery and alterations—*H. Janson, Prestbury, near Macclesfield.

Preston.—Extension of a shop in Wharf-street, for the T.C. :—
*Wm. Jackson & Sons, Preston £312 5

Preston.—66 houses in Basil-street, for the T.C. :—
*A. Threlfall, Leyland £18,928

Romiley.—Twenty-two parlour-type houses on Cherry Tree estate, Compstall-road, Riley, for the Bredbury and Romiley U.D.C. Mr. W. A. Banks, architect, 76, Wellington-street, South, Stockport :—
*Roger B. Key, Woodley, near Stockport.

Roundhay.—Conversion of Gledhow Hall into residential flats. Messrs. A. & F. Mosley, Ltd., architects :—
*W. H. Hylton.

Settle.—Six houses at Giggleswick, for the R.D.C. Mr. S. C. Davidson, surveyor :—
Bricklaying—
*E. B. Fidoe, Bell Hill £1,082
Carpentering and slating—
*Brassington & Sons & Co., Settle 822

South Shields.—65 houses, Boldon Colliery, for the R.D.C. Mr. W. Welsh, engineer and surveyor :—
*W. D. Allison, Whitburn, near South Shields £12,530 12

South Shields.—Making-up (in part) of Lily-crescent and Lilac-avenue, on the Council's housing estate at Marsden, Whitburn Colliery, for the R.D.C. Mr. William Welsh, surveyor and architect:—

*George Thornton & Co., Redlands, South Shields £1,033 4 2

Southover.—Boundary wall to the playing field:—
*E. Hammond, Lewes.

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Swaffham.—3 pairs of houses at Narborough and 3 pairs at Sporle, for the R.D.C. Mr. W. H. Edwards, surveyor, Great Cressingham, Thetford:—

Narborough—

F. W. Shanks, Hunstanton	2,600
J. W. Eggleton, Terrington	2,390
O. Staines & Son, Fincham	2,136
S. Tennant & Sons, Watton	2,090
*H. C. Tofts & Son, Hingham, Nfk.	2,080

Sporle—

J. W. Eggleton, Terrington	£2,250
F. W. Shanks, Hunstanton	2,150
S. Tennant & Sons, Watton	1,880
F. Burton, Little Fransham	1,750
*H. C. Tofts & Son, Hingham, Nfk.	1,590

Tadley.—Primitive Methodist Church on site adjoining the present church on the Tadley-Aldermaston-road. Mr. Kelsall Armitage, architect, 130, Haverstock-hill, Belsize Park, London, N.W.3. Quantities by Mr. T. Sumner Smith, F.S.I., Clifton Lodge Manchester:—

*R. Goddard, Tadley.
(Estimated cost £2,049.)

Tottenham.—Additions to the chapels at Tottenham Cemetery, for the Joint Burial Board. Mr. H. J. Raynon, clerk to the Board, Cemetery Office, Church-lane, N.17:—

A. Walker, Tooting Broadway	£2,394
P. S. Foreman, Romford-road, E.7	2,124
C. Miskin & Sons, Ltd., St. Albans	2,100
O. Diplock & Son, Enfield	1,800
C. J. Newby & Bros., Southgate	1,768
E. King, Ltd., Whitefriars-street, E.C.	1,737
H. Knight & Son, Bruce Grove, Tottenham	1,410
*G. Groves & Son, Bruce Grove, Tottenham	1,358

Twickenham.—Buildings, alterations and additions to existing buildings, etc., at the London-road depot, for the T.C.:—

Speechley & Smith	£8,247 0 0
Willment Bros.,	8,110 10 10
Dixon & Sons	8,094 0 0
W. H. Cooper & Son	7,777 0 0
Nole & Co., Ltd.	7,709 0 0
A. Pascall & Son, Ltd.	7,447 0 0
F. D. Hidden & Co., Ltd.	7,328 10 0
Thorogood Bros. & Sons	7,199 0 0
Thomas Hiscock, Ltd.	7,162 0 0
Fox & Champion	7,120 0 0
*J. Markham	7,086 9 2

West Lancashire.—46 cottages, for the R.D.C. Mr. R. Rosbotham, surveyor, Derby-street, Ormskirk:—

*J. Wignall, Banks, near Southport	£398 0	—each
*Gradwell & Sons, Halsall, near Ormskirk	392 10	— ,,
*R. Lloyd & Sons, St. Lukes'-road, Southport	390	0 & 406 ,,
*H. J. Guthrie, Longmoor-close, Fazackerley, Liverpool	366	0 & 376 ,,

Worcestershire.—For (*a*) garage and motor-cycle shed at Stourbridge police station; (*b*) cottage for the police at Stoke Works; (*c*) police cottage at Hanbury; (*d*) police cottage at Pinvin, and (*e*) steel bridgeway at Kidderminster Institution:—

(*a*)—*J. & C. Bill, Stourbridge	£253
(*b*)—*Tilt Brothers	527
(*c*)—*Tilt Brothers, Ltd., Bromsgrove	527
(*d*)—*F. J. Hill, Malvern	610
(*e*)—*J. H. Smith	468

Workington.—Alterations and store equipment for Mr. Gilbert Rydiard, New Oxford-street:—
*A. Hawkes & Co., shopfitters, Leicester.

Worthing.—Foundations of clinic block at Chapel-road, for the T.C. Mr. P. E. Harvey, Borough Surveyor, and Mr. C. Cowles-Voysey, F.R.I.B.A., architects, 14, Gray's Inn-square, London, W.C.1:—

P. W. Gladstone & Co., Ltd., Brighton	£1,156 14 0
Rice & Son, Ltd., Brighton	870 0 0
G. H. Gibson & Sons, High Wycombe, Bucks	865 0 0
Limpus & Sons, Ltd., Hove	846 0 0
The Ringmer Building Works, Ringmer	824 17 0
Field & Cox, Ltd., Brighton	812 0 0
F. Sandell & Sons, Worthing	777 0 0
A. E. Dairy, Ltd., Bognor Regis	770 0 0
James Bodle, Ltd., Brighton	718 0 0

Wroxham.—New house for Mr. H. L. Clark Messrs. Buckingham & Berry, F.S.I., F.R.I.B.A., architects and surveyors, 43a, Prince of Wales-road, Norwich:—

J. Youngs & Son, Norwich	£2,791 0 0
Scarles Bros., Norwich	2,790 0 0
W. S. Lusher, Norwich	2,725 0 0
T. Gill & Son, Norwich	2,693 0 0
H. Bullen & Son, Cromer	2,647 0 0
*A. R. Taylor & Co., Wroxham	2,548 15 6

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